REPUBLIC OF KENYA **GOVERNMENT OF MAKUENI COUNTY**

DEPARTMENT OF ICT, EDUCATION & INTERNSHIP

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MAKUENI COUNTY REVENUE MANAGEMENT SYSTEM TERMS OF REFERENCE

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PART A — BACKGROUND

The County Government of Makueni collects own source revenue under Article 209(3) of the Constitution of Kenya and the applicable Makueni County Finance Acts. Revenue is collected across six sub-counties and thirty wards, from streams including Single Business Permits, land rates, market fees, parking, produce and cess, livestock cess, building approvals, outdoor advertising, liquor licenses, public health licenses, rent on County stalls, hire of County assets and health facility fees.

Makueni County has progressively digitized revenue administration since 2017 and adopted a cashless revenue collection model from 2023, with payments made electronically. The County currently uses the ZIZI Revenue Management System, supported by other systems and processes for specific functions. However, the existing environment has limitations in customer self-service portal, system integration, workflow management, reconciliation, GIS capabilities, and consolidated reporting.

In FY 2025/26, the County collected approximately KES 1.72 billion in own-source revenue against an approved target of KES 1.668 billion, representing about 103% achievement. This growth, from approximately KES 189 million in FY 2013/14, reflects significant progress in revenue mobilization and digital transformation.

The County therefore seeks to implement a Fully Automated and Integrated County Revenue Management System (AICRMS) that brings all revenue streams onto one secure, integrated and cashless platform owned and controlled by the County. The system will enhance real-time revenue visibility, billing, payment, receipting, reconciliation, arrears management, reporting and revenue assurance, in line with the National Policy (CRA guidelines) to Support Enhancement of County Governments' Own-Source Revenue, 2026 (Kenya Gazette Vol. CXXVIII—No. 127, Gazette Notice No. 11488, 27th July 2026).

This TOR is issued to procure a qualified vendor to design, develop, supply, install, configure, test, train and commission the AICRMS.

A.1 Objectives

1. Automate the full revenue lifecycle — registration, assessment, billing, payment, receipting, enforcement, reconciliation and reporting — for every revenue stream in the Finance Act, with provision to add new streams.
2. Achieve cashless collection through multiple payment channels, with all funds deposited directly into County bank accounts.
3. Eliminate revenue leakages and enhance revenue generation to achieve the County's target of KShs 1.5 billion OSR.
4. Give citizens and businesses convenient self-service through web, mobile app, USSD and chat-based channels.
5. Provide County management with real-time, accurate revenue data for target setting, enforcement and decision-making.
6. Integrate with existing County systems (Makueni Ardhi, MyMakueni App) and national systems (IFMIS, eCitizen, banks, mobile money) to eliminate double entry.
7. Reduce revenue leakage through controls, audit trails, GIS-based enforcement and automatic reconciliation.
8. Ensure compliance with the Public Finance Management Act, 2012, the County Finance Act and audit requirements.
9. Promote transparency, accountability and good governance in revenue administration.
10. Support the County's vision to establish a County Revenue Authority and grow OSR contribution to 20 percent of the county budget by 2027.

PART B — DEFINITIONS AND GLOSSARY

The following terms have the meanings below throughout this TOR. The full Glossary is at **Annex 12**.

Term	Definition
Real-time	Billing, payment posting and receipting shall complete within 2 seconds under normal load. The 3-second / 95% measure applies only to other transactions. API p95 latency 2 seconds or less.
Offline mode	Full capture of transactions with local queueing and automatic synchronization on restoration of connectivity, as specified in **TR-1.5** and Modules AF4, AE14, K9, K23, AS6.

Term	Definition
Maker-checker	Two-person control in which the maker creates and the checker approves; applies to all approval workflows (Module AO).
RBAC	Role-Based Access Control — rights assigned by role and location (Module AN, TR-3.3).
SCOA	Standard Chart of Accounts used by the County and compatible with IFMIS (TR-8.5, Module AL12).
T+1 reconciliation	Daily reconciliation completed by the next business day, with ≤1% unresolved after T+3 (Part D45).
RPO / RTO	Recovery Point Objective not more than 15 minutes; Recovery Time Objective not more than 2 hours, from an in-country DR site.
MFA	Multi-Factor Authentication — mandatory for all back-office and field users; OTP-based for citizens (TR-3.3, Module AN5).
Uptime	Application uptime **≥99.5%** per calendar month (TR-1.6); infrastructure components **≥99.9%** and channel-specific services **≥99.5%** (Part N3).
Phase / Wave	**Project phases** = M1 (Inception → Post-Implementation). **Revenue rollout waves** = Wave 1 (unstructured: cess, markets), Wave 2 (structured: parking, SBP, health, rates), Wave 3 (remaining + integrations, GIS, banks) (M2.10).
Backup	Automated, encrypted daily full and hourly incremental backups, with quarterly restore tests.
Peak capacity	Not less than 1,200 transactions per second across all channels at peak
Hyper care	The period of intensified contractor support from County-wide go-live to ninety (90) days after Operational Acceptance

PART C — SCOPE OF SERVICES

1. Design, develop, install, deploy, test, train and commission an end-to-end fully automated and integrated revenue management system.
2. **System deployment plans.** The contractor shall provide:
   a. A project implementation plan;
   b. Integration with the County applications and third-party platforms listed in Module AR.
3. **Payment channels.** The system shall accept payment through, at a minimum:
   a. USSD;
   b. Mobile money from all major mobile money platforms operating in Kenya;
   c. Debit and credit cards, including magnetic stripe, chip and contactless (NFC);
   d. RTGS and EFT;
   e. QR code-based payments;
   f. Mobile money agents and agency banking;
   g. Web and mobile application payment;
   h. Cash deposit at the County's bank. (See Module R for full payment channel requirements.)
4. **Security.** Two-factor authentication and IP address restriction for all back-office users, valid TLS certificates on all endpoints, and security patching within the timelines in **TR-3 (Security)**.
5. **Reports and enquiries.** Role-based, real-time reports exportable to PDF, Excel, Word and CSV, and channels through which customers raise enquiries and obtain statements and clearances. (See Module Q.)
6. **Availability.** Online and offline operation at all revenue collection points, meeting the uptime standard in **TR-1.6** and accessible through web, USSD, Android, iOS and Windows. (See **TR-1.5** for offline requirements.)
7. **Training** of all user groups in **Part L**, including materials and manuals.
8. **Support** on the terms in **Part N (Service Level Agreement)**, including the helpdesk, upgrades and fixes.
9. **Regulatory compliance** with the Data Protection Act, 2019, Central Bank of Kenya and Communications Authority of Kenya requirements applicable to the services offered, and the security standards in **TR-3**.
10. **Revenue governance and compliance.** Review the County's revenue legal framework, policies and processes, and recommend improvements to strengthen own-source revenue administration (Deliverable 12, Part J).
11. **Revenue mapping.** Identify and map revenue sources using GIS and GPS capture with a horizontal accuracy of **±5 m**, to quantify the potential of each structured revenue stream and support enforcement. (See Module AP.)
12. **CRA Guidelines compliance and Contractual safeguards.** The system shall comply with all mandatory requirements set out in the CRA Standards and Guidelines on the Automation of County Own Source Revenue, 2026, including functional requirements (FR.1–FR.50) and technical requirements (TR.1–TR.48), data migration and cutover requirements, change management and training requirements, risk management

framework, data and records governance requirements and service level requirements. All contracts and implementation arrangements relating to the CRMS shall include express provisions for data protection, source code escrow,

knowledge transfers and system sustainability, so as to ensure long-term performance and institutional ownership.

PART D — SYSTEM REQUIREMENTS

The proposed system shall:

1. Process every transaction in real time, with the response times in **TR-1.7**. (Real-time is defined in the **Glossary, Part B** and in **TR-1.7**.)
2. Support all revenue streams in the Finance Act, including parking, market fees, land rates, rent, billboards, permits, cess and health facility collections.
3. Provide comparative analysis and drill-down of reports to transaction level. (See Module Q.)
4. Provide an embedded business intelligence tool for revenue performance, variance and forecasting. (See Module Q.)
5. Synchronize transaction data automatically and in real time across all channels and devices.
6. Present role-specific screens for citizens, collectors, verifiers and enforcers, so that each user completes their task without manual workarounds.
7. Send email and SMS notifications, including bulk SMS, for billing, payment confirmation, renewal and follow-up. (See Module AD.)
8. Integrate with third-party systems, namely NTSA, IPRS, BRS and eCitizen. (See Module AR.)
9. Verify transactions and payments using unique identifiers, barcodes and QR codes, through scanners and the mobile application. (See Module S.)
10. Provide real-time monitoring and control of devices and users, including geo-fencing of POS devices to assigned revenue points.
11. Provide POS device management, including automatic push of updates, device logs, control of device status and device geolocation.
12. Apply maker-checker control to user management, including creation, role assignment and deactivation of users. (Maker-checker is defined in the **Glossary, Part B** and in Module AO, and applies across all approval workflows.)
13. Support impounding, including e-clamping and accumulation of impounding charges. (See Module B and Module Y.)
14. Manage waivers and penalties with maker-checker approval in line with the County operations manual.
15. Bill recurring charges automatically, such as rent, monthly stickers and penalties.
16. Support reserved parking payments and periodic payments where applicable.
17. Set and track revenue targets by stream, sub-county, ward, revenue point and officer.

18. Measure the performance of revenue collectors, enforcement officers and supervisors against those targets.
19. Offer the payment channels listed in Part C3, across more than one provider in each channel. (See Module R.)
20. Integrate with existing and future County back-office systems through the APIs in **TR-2** and **Module AR**.
21. Provide reports and dashboards for real-time monitoring of revenue from each source and for reconciliation. (See Module Q.)
22. Capture and transfer existing information from current County systems, namely LAIFORMS, IPPD, eCHIS and the current revenue system. (See Module AQ.)
23. Be accessible through web, USSD, Android, iOS and Windows.
24. Meet the availability, backup and disaster recovery standards in **TR-3** and **Part I**.
25. Meet the security standards in **TR-3**.
26. Apply role-based access control, with rights assigned by role and location. (RBAC is defined in the **Glossary, Part B** and in Module AN, and applies throughout.)
27. Support enforcement through a GIS map covering all structured revenue sources. (See Module AP.)
28. Integrate directly with the County's bankers and payment gateways for real-time verification of payment, searchable by unique payment reference. (See Module AR.)
29. Reconcile bank and mobile money collections automatically, in line with Module R. (See Module T.)
30. Work in both online and offline modes to address network outages, in line with **TR-1.5**. (Offline mode is defined in the **Glossary, Part B**.)
31. Provide hosting for production and backup environments where the County does not host the system in its own data center. (See **Part I** and **Module AS**.)
32. Maintain a client database with a unique identifier for each customer per revenue stream.
33. Maintain customer and ratepayer ledgers with running balances and aging analysis, and transaction ledgers with Standard Chart of Accounts (SCOA) coding. Every transaction shall post automatically to the customer and transaction ledgers without manual intervention
34. Detect and flag duplicate accounts, and maintain full interaction history for each taxpayer.
35. Support bulk import and export of data in CSV and Excel formats with validation.
36. Configure revenue streams per the Finance Act, add new streams without vendor intervention, and maintain rule-based fee computation with version history.
37. Enforce SCOA mapping before billing.
38. Maintain a register of county-owned assets.
39. Configure billing frequencies and automatic penalties/interest, with waivers subject to maker-checker approval.
40. Categorize streams by ward/market and set targets.
41. Provide end-to-end workflow from application to license, with customizable checklists enforced before billing.

42. Automatically flag renewals with SMS/email/USSD notifications.
43. Accept payments via mobile money, EFT, cards and USSD, with offline queueing and reversals.
44. Issue instant receipts and confirmation.
45. Achieve daily T+1 reconciliation, with ≤1% unresolved after T+3.
46. Process refunds/reversals with approval workflow.
47. Support partial payments, overpayments and split payments.
48. Support mass billing of ≥100,000 invoices in under 30 minutes (also mandated at **TR-5.4** and Module AJ7).
49. Generate aging reports for 30 / 60 / 90 / 180+ days.
50. Support instalment payment plans.
51. Generate automated reminders with escalation.
52. Support case management with GPS/time-stamping, with ≥90% geo-stamped.
53. Restrict repeat offenders.
54. Register revenue staff with roles, and assign collectors to sources/targets.
55. Register external collection agents.
56. Provide real-time staff/agent performance metrics.
57. Provide a taxpayer portal with OTP login and WCAG compliance.
58. Provide low-bandwidth USSD access.
59. Provide officer and taxpayer apps with offline-first design.
60. Meet accessibility standards and support multilingual (English/Kiswahili) interfaces.
61. Allow updates to rates/cycles/penalties without code changes.
62. Support daily ledger posting and reporting with system lock.
63. Support period lock, roll forward balances and monthly reports.
64. Support fiscal year closure and carry forward arrears.
65. Provide ≥30 standard reports, an ad hoc builder, and export to CSV/XLSX/JSON.
66. Provide SCOA-coded exports compatible with IFMIS.
67. Provide maps and spatial reports.
68. Maintain tamper-evident audit logs with 7-year retention.
69. Provide REST/JSON APIs with OAuth 2.0/OpenID, API uptime ≥99% and latency ≤2 s.
70. Link the central registry to National ID, KRA PIN and BRS numbers, support many-to-many relationships, and scale to not less than 1,000,000 records
71. Block billing of any item not mapped to SCOA
72. Issue invoices in PDF and e-bill formats with unique payment references, and keep lineage on re-billing
73. Provide reconciliation exception worklists with closure SLAs, including reversals and chargebacks
74. Lock each day after end-of-day posting, blocking back-dated entries except authorized re-opens
75. Produce, within the 30 or more standard reports, exportable to PDF, CSV, XLSX and JSON
76. Show dashboard figures that reconcile exactly to the underlying reports

77. Operate billing, receipting and enforcement offline with secure store-and-forward synchronization, and hold GIS layers offline on enforcement devices
78. Maintain a registry of authorized devices with session timeouts, concurrent login limits, remote wipe and anti-tamper alerts

79. Produce a daily system check report covering integrity, data accuracy, uptime and incidents for the County ICT Directorate

80. Produce the data the County needs for quarterly compliance reports to the CRA and National Treasury, the annual audit by the Auditor-General and Internal Audit.

PART E-I — REVENUE MODULES AND FUNCTIONAL REQUIREMENTS

The scope of this assignment includes the design, development, supply, installation, configuration, customization, integration, testing, training, commissioning and maintenance support of the AICRMS. The system shall comprise the following revenue modules with their specific functional requirements.

Cross-cutting notes:

- **Reporting:** All modules shall have access to the reporting framework in **Module Q**. Module-specific reports below are those unique to that module.
- **GIS:** All GIS functionality uses the framework in **Module AP**. Module-specific GIS requirements are listed only where they add unique functionality.
- **Integration:** All integrations are in **Module AR** (with **TR-2** summarizing). Module-specific integration requirements are listed only where they add unique functionality.
- **Security:** All security requirements are in **TR-3 (Security)**. **Module U/AT is merged into TR-3 and is not separately numbered.** Module-specific security requirements are listed only where they add unique functionality.
- **Messaging:** All messaging requirements are in **Module AD**. Module-specific messaging requirements are listed only where they add unique functionality.

Module A — Single Business Permits

No.	Description
A1	Registration of businesses with owner details, location, KRA PIN, certificate of incorporation, national ID and business category.
A2	Maintenance of a business register with unique identifier per business.
A3	Application for new business permits, renewals and amendments through the self-service portal.
A4	Capture of business category, location, size and other parameters for fee computation.
A5	Automatic fee computation per the Makueni County Finance Act, with annually configurable fee schedules.
A6	Generation of bills, invoices, demand notes and receipts.
A7	Generation of ad hoc bills.
A8	Late payment penalties based on configurable penalty rules.
A9	Multi-level approval workflows including inspection, verification and approval by authorized officers.
A10	Issuance of QR-coded digital business permits verifiable electronically.
A11	Automated SMS and email renewal reminders before expiry.
A12	Compliance tracking dashboard by zone, ward and business category.
A13	Flagging of non-compliant businesses for enforcement action.
A14	Supporting document upload and retrieval linked to each application.
A15	Business license search by unique identifier, email, telephone, ID number or business registration number.
A16	Reporting of registered, inactive and penalized businesses.

No.	Description
A17	A checklist of application requirements by business type or category, to be satisfied during application (e.g. health permits, zoning approvals).
A18	Updating of the checklist by authorized County staff.
A19	Application, renewal and payment for business licenses through the self-service portal, with security measures protecting customer data.
A20	Generation of bills, invoices, demand notes and receipts.
A21	Generation of ad hoc bills.
A22	Late payment penalties based on configurable penalty rules.
A23	Generation as a set of applicable forms to be sent to businesses.
A24	Identification of accounts with inconsistencies, discrepancies or variances, producing candidate cases for audit.
A25	Plotting of geographic locations of all business license accounts on GIS.
A26	List of registered businesses.
A27	Penalty report by license category.
A28	List of inactive businesses.
A29	Processing of ad hoc applications (e.g. burial permits) against prerequisite checklist rules, submitted online through the portal or processed manually by an authorized officer.
A30	Automatic refresh of an ad hoc request on payment confirmation, with the permit sent by email, downloaded from the portal, or collected from the nearest County office.
A31	Exemption module for persons with disabilities, requiring a clearance certificate and approvals from the relevant authorities.

No.	Description
A32	License search by unique identifier, email, telephone, ID number, business registration number etc.
A33	Online Application Portal — Taxpayers shall apply for new business permits, renewals and amendments through a self-service web portal .Applications shall capture KRA PIN, certificate of incorporation, national identification and evidence of clearance of all land-based revenues as per the County Treasury Charter.
A34	**Automated Fee Computation** — The system shall automatically compute permit fees based on business category, location, size and other parameters as prescribed in the Makueni County Finance Act. Fee schedules shall be configurable annually.
A35	**Instalment Payment Support** — The system shall support instalment payment of Single Business Permit fees to ease the financial burden on traders, as introduced by the County. (See Module R4.)
A36	**Early Payment Incentives** — The system shall apply discounts for early payment as prescribed in the Finance Act, incentivizing voluntary compliance.
A37	**Half-Yearly and Quarterly Licenses** — The system shall support half-yearly and quarterly licenses for new customers.
A38	**Workflow & Approval** — Multi-level approval workflows including inspection, verification and approval by authorized officers. The County Treasury Charter specifies a 1-day turnaround for issuance.
A39	**Digital Certificate Issuance** — Generation of QR-coded digital business permits that can be verified electronically.
A40	**Renewal Reminders** — Automated SMS and email reminders for permit renewals before expiry. (See Module AD.)
A41	**Compliance Tracking** — Dashboard showing compliance status by zone, ward and business category.
A42	**Enforcement Integration** — Flagging of non-compliant businesses for enforcement action. (See Module Y.)

Module B — Parking Management

No.	Description
B1	Subsidiary rules within main rules for services such as parking, including clamping, impounding, obstruction, storage and towing charges per the Finance Act.
B2	Booking in of vehicles that have been clamped and towed.
B3	Alert to the officer to unclamp and release a vehicle once all charges are settled, with automatic update of the clamping register.
B4	Registration of individual vehicles, businesses and Saccos.
B5	Linking of individual PSV vehicles and owners to Saccos.
B6	Daily, monthly and yearly parking payments.
B7	Reserved parking payments.
B8	Notification to the client when parking fees are paid. (See Module AD.)
B9	Notification to County staff and clients when reserved parking is due. (See Module AD.)
B10	Report of the number of vehicles in a Sacco.
B11	Report of revenue per Sacco.
B12	Report of the number of vehicles parked periodically.
B13	Report of the number of vehicles parked per revenue administration area.
B14	Generation of vehicle stickers at pay points or from the self-service portal.
B15	Suspension of vehicle accounts for vehicles reported grounded, through maker-checker approval.
B16	Updating of vehicle ownership and payment details, including waivers and exemptions.

No.	Description
B17	Statement of payments per vehicle with payment dates.
B18	**Parking Zone Management** — Definition of parking zones, categories (on-street, off-street, seasonal) and fee structures.
B19	**Seasonal Parking** — Management of monthly, quarterly and annual parking subscriptions with digital permits.
B20	**Daily Parking Collection** — Mobile app-based collection for daily parking with instant e-receipts.
B21	**POS Integration** — Integration with handheld POS devices for cashless parking fee collection.
B22	**USSD & Mobile Money** — Payment via USSD (*838#) and mobile money platforms. (See Module R.)
B23	**Enforcement Module** — Capture of parking violations, issuance of digital penalty notices, clamping and towing management. (See Module Y.)
B24	**Vehicle Registration** — Registration of vehicles for parking permits with number-plate recognition capability.
B25	**Clamping & Release Workflow** — Digital workflow for vehicle clamping, penalty payment and release.
B26	**Reporting** — Daily, weekly and monthly collection reports by zone, collector and payment channel.

Module C — Outdoor Advertising

No.	Description
C1	Recording of the size of branding, billboards and signage.

No.	Description
C2	Recording of the GIS location of branding, billboards and signage. (See Module AP.)
C3	Recording of the payment period of branding, billboards and signage.
C4	Linking of branding, signage and billboards to the organization that owns them.
C5	Categorization of billboards, branding and signage.
C6	Reporting of revenue per category.
C7	Reporting of the number of branding items, signage and billboards per revenue administration center.
C8	Capture of charges per the Finance Act.
C9	Generation of interim and final invoices, with email and SMS notification. (See Module AD.)
C10	Generation of penalties per the Finance Act.
C11	Reports filterable by duration, validity or expiry, zone, sub-county etc.
C12	Mobile advertising such as flyers, posters, banners, roadshows and activations.
C13	Charging of promotions based on geographical coverage and duration.
C14	**Billboard/Signage Register** — Digital register of all advertisements, billboards and wall branding with location, size, type and owner details.
C15	**Annual Billing** — Automatic computation and billing of advertisement fees based on size, location and type.
C16	**Permit Application** — Online application for new advertisement permits and renewals.
C17	**GIS Mapping** — Mapping of advertisement locations for compliance monitoring. (See Module AP.)

No.	Description
C18	**Enforcement** — Tracking of unauthorized advertisements and enforcement action. (See Module Y.)
C19	**Reporting** — Reports by location, type and revenue performance.

Module D — Land Rates

No.	Description
D1	Registration of ratable properties with owner details, location, plot number, land reference and property characteristics.
D2	Calculation of rates based on the valuation roll and County-defined metrics.
D3	Maintenance of the valuation roll including property valuations, supplementary valuations and objections.
D4	Automatic generation of rate demands and rent invoices based on the valuation roll.
D5	Support for partial payments on property rent and rates. (See Module R5.)
D6	GIS integration for property mapping, spatial analysis and revenue heat maps. (See Module AP.)
D7	Automated generation and distribution of demand notices via SMS, email and physical delivery tracking. (See Module AD.)
D8	Aging analysis of arrears, automated demand letters, instalment plan management and waiver processing with approval workflows. (See Module AK.)
D9	Configurable workflow for processing waivers and write-offs with multi-level approvals.
D10	Automatic computation of penalties and interest on overdue accounts as per the Finance Act.

No.	Description
D11	Online plot searches and clearance certificate generation.
D12	Seamless data exchange with the existing Makueni Ardhi System (lims.makueni.go.ke). (See Module AR.)
D13	Property owners shall access their statements, make payments and download receipts through the taxpayer portal. (See Module AE.)
D14	Workflow for processing property transfers with outstanding rate clearance verification.
D15	Reports by ward, sub-county, property category and payment status.
D16	Receipting of payments.
D17	Generation of rates clearance certificates.
D18	Reporting of revenue per property type.
D19	Reporting of the number of properties.
D20	Reporting of each property's status, block and location.
D21	Statement for each property.
D22	Computation of waivers based on a given percentage.
D23	Demand notices for each property and for all due properties.
D24	Reporting of total arrears on properties.
D25	Handling of impounded properties for recovery of rates arrears.
D26	Multiple search parameters on property.

Module E — Property Rent

No.	Description
E1	Ad hoc payments for houses, market stalls and slabs, shops, booking offices, public utilities, cold rooms etc., linked to configured facilities and validated against defined charge rates.
E2	Periodic payments for market stalls, creating an account in the registration module for a single view of the entity.
E3	Transfer of tenancy.
E4	Registration of new stalls, rental houses, kiosks and toilets.
E5	Detailed reports on revenue per category, payment statements and arrears.
E6	Reporting of the status of stalls, rental houses, kiosks, toilets etc.
E7	Demand notices for each stall, rental house, kiosk, toilet etc.
E8	SMS and email notification of payments. (See Module AD.)
E9	Updating of new properties.

Module F — Hire of County Assets

No.	Description
F1	Application, approval and allocation of County assets eligible for hire per the Finance Act, through maker-checker approval.
F2	Restricted to vacant or unbooked assets.
F3	Ad hoc payments for County assets validated against Finance Act charge rates.
F4	Creation of an account in the registration module for a single view of the entity.
F5	Status of each County asset.

No.	Description
F6	Reports on County assets filterable by availability, location, zone, charge rate, officer in charge etc.

Module G — Fines

No.	Description
G1	Collection of fines as configured and validated against Finance Act charge rates, with offences drawn from a case management module. (See Module Y for case management.)

Module H — County Parks, Recreational and Tourism Facility Fees

No.	Description
H1	Collection of fees for use of County parks, recreational and tourism facilities (e.g. entry, camping, events, film and photography), with facility details and fees drawn from configuration.

Module I — Public Health Services Fees

No.	Description
I-1	Self-service online application and renewal of public health licenses.
I-2	End-to-end public health permit approval workflow, including site inspections.
I-3	Issue of public health licenses on approval.
I-4	Reporting of public health licenses and permits issued per business entity.
I-5	Advance notification to County staff and citizens when public health licenses and permits are due. (See Module AD.)

No.	Description
I-6	Suspension, cancellation and reinstatement of food hygiene licenses on health grounds, capturing the business details.
I-7	Reporting of the number of food handlers' certificates issued.
I-8	Online booking of clinical food handlers' tests, with notification of results.
I-9	Printing of food handlers' certificates from the self-service portal.
I-10	Notification to County staff and citizens fourteen (14) days before a food handler's certificate expires.
I-11	Applications for certificates from individuals and organizations.
I-12	All other public health fees and charges, e.g. swimming pools, cemeteries, school health and slaughterhouses, per the Finance Act.
I-13	**Public Health Permit** — Application, approval and issuance of public health permits for food premises and other regulated establishments.
I-14	**Food Handler Certificates** — Registration, medical examination tracking and certificate issuance for food handlers.
I-15	**Inspection Management** — Scheduling and tracking of public health inspections.
I-16	**Fire Certificate Fees** — Application, inspection and issuance of fire safety certificates.
I-17	**Waste Management Billing** — Zonal billing for garbage collection and waste management services.
I-18	**Sanitation Fees** — Billing and collection for sanitation services.
I-19	**Reporting** — Reports by zone, premises type and compliance status.

Module J — Fire Licenses and Permits

No.	Description
J1	Self-service online application and renewal of fire licenses.
J2	Approval workflow for fire licenses, including site inspections.
J3	Issue of an interim license before inspection and a final license after inspection.
J4	Reporting of fire licenses and permits issued per business entity.
J5	Application, inspection and issuance of fire safety certificates.
J6	Fee computation per the Finance Act.
J7	Reporting of fire certificate revenue and compliance.

Module K — Market Fees, Royalties and Cess

K.1 Market Fees

No.	Description
K1	Collection of market fees per the Finance Act.
K2	Real-time reporting of revenue collected. (See Module Q.)
K3	Collection trends for each revenue stream and each collector.
K4	Supervision, monitoring and enforcement of revenue collection. (See Module Y.)
K5	Real-time reconciliation of collections and banking. (See Module T.)
K6	**Market Register** — Digital register of all county markets, stalls and allocated spaces with trader details.
K7	**Stall Allocation & Management** — Management of stall allocation, transfers and vacancies.

No.	Description
K8	**Daily/Periodic Billing** — Support for daily, weekly and monthly fee billing for market entrance and stall fees.
K9	**Mobile Collection App** — Field collectors shall use a mobile app with offline capability to collect fees, issue e-receipts and sync when connectivity is available.
K10	**Instant E-Receipts** — SMS-based e-receipts issued immediately upon payment to eliminate fraudulent paper receipts.
K11	**GPS Tagging** — Collection points and market locations tagged with GPS coordinates for monitoring. (See Module AP.)
K12	**Market Committee Integration** — Support for revenue champions from market committees as designated by the County.
K13	**Daily Reconciliation** — Automated reconciliation of daily collections by collector, market and payment channel.
K14	**Performance Tracking** — Collector performance dashboards with targets vs. actuals.
K15	**Enforcement** — Tracking of non-compliant traders and enforcement action.

K.2 Cess (Produce, Livestock, Building Materials)

No.	Description
K16	Collection of royalties and cess per the Finance Act.
K17	Sand, quarry and produce cess by vehicle, tonnage or quantity at designated cess points, with issue of movement permits verifiable at barriers by QR code.
K18	Livestock sale yard fees and movement permits, by head and category of livestock.
K19	Configuration of cess points and barriers as revenue points, with devices geo-fenced to them.

No.	Description
K20	**Cess Point Management** — Registration and management of cess collection points (entry/exit points, markets, border posts).
K21	**Produce Classification** — Digital catalogue of agricultural produce subject to cess with corresponding rates.
K22	**Quantity-Based Computation** — Automatic cess computation based on quantity, type and mode of transport.
K23	**Mobile Collection** — Mobile app for cess collectors at checkpoints with offline capability.
K24	**E-Receipts** — Instant SMS/e-receipts for all cess payments.
K25	**Transporter Registration** — Registration of transporters and vehicles for cess compliance tracking.
K26	**Building Materials Cess** — Separate tracking for Building Materials Cess.
K27	**Livestock Cess** — Management of livestock movement permits and cess.
K28	**Reporting** — Reports by commodity, checkpoint, collector and period.

Module L — Liquor Licenses

No.	Description
L1	Application, renewal and payment for liquor licenses through the self-service portal.
L2	Registration and tracking of applications from all sub-counties.
L3	Structuring and coding of liquor licenses per the Finance Act, the Alcoholic Drinks Control Act, 2010 and the County's alcoholic drinks control legislation.
L4	Approval processes, including sub-county alcoholic drinks regulation committee review and inspection, before issue of a license.

No.	Description
L5	Notification to customers of the status of their applications. (See Module AD.)
L6	Payment for licenses per the Finance Act.
L7	Generation of licenses with barcodes, QR codes and similar features for quick and secure verification.
L8	Reports on licensed premises, payment details and status.
L9	Recording of the GIS location of licensed premises. (See Module AP.)
L10	Reports on all applications, application status (approved, pending, rejected, expired etc.), payment status and renewal dates.
L11	Functions of the Administrative Review Committee under the County's alcoholic drinks control legislation.
L12	**Application Management** — Online application for new liquor licenses, renewals and transfers with document upload (national ID, health certificate, premises lease/ownership, KRA PIN).
L13	**Category-Based Licensing** — Support for different license categories (bar, restaurant, club, wholesale, retail, winery etc.) with corresponding fee structures.
L14	**Multi-Agency Workflow** — Integrated workflow involving Public Health, Liquor Licensing Board and Sub-County Committees.
L15	**Public Participation Module** — Posting of applications for public objection/comment as required by law.
L16	**Inspection Scheduling** — Automated scheduling and tracking of premises inspections.
L17	**Fee Computation** — Automatic computation of license fees based on category, location and other parameters.
L18	**Instalment Payment** — Support for instalment payments for liquor licenses. (See Module R4.)

No.	Description
L19	**Digital License Issuance** — QR-coded digital liquor licenses with verification capability.
L20	**Enforcement & Compliance** — Tracking of unlicensed premises, expired licenses and compliance violations. (See Module Y.)
L21	**Reporting** — Real-time reports on liquor license revenue, compliance rates and enforcement actions.

Module M — Physical Planning and Development

No.	Description
M1	Application and payment for planning applications per the Finance Act through the self-service portal.
M2	Application, registration and approval of building plans, including structural, engineering and architectural plans.
M3	Application and approval of planning briefs and policy documents, including change of land use, extension of use, renewal and extension of lease, subdivision and amalgamation.
M4	Application and approval of major and minor renovations.
M5	Application and approval of major and minor alterations.
M6	Application and approval of related applications such as underground cabling and wayleaves.
M7	Capture of the GIS location of the property tied to an application. (See Module AP.)
M8	Risk categorization of applications as low, medium or high.

No.	Description
M9	Enforcement, including QR codes on approved plans and letters. (See Module Y.)
M10	Generation of letters (approved, declined etc.), reports, plans, invoices and receipts.
M11	Billing and payment at any stage of application processing.
M12	Multiple levels of approval within the application process.
M13	Attachment of documents.
M14	Reports on applications received, paid, approved, declined and valid.
M15	Link to the properties and land rates module to check rates compliance before approval. (See Module D.)
M16	Upload of project documents by approved and validated professionals (architects, planners, surveyors, engineers etc.).
M17	Digital workflows taking each application through the stages required by the Physical and Land Use Planning Act, 2019.
M18	A mobile application enabling inspectors and other officers to collect information and update the system. (See Module AF.)
M19	**Online Application** — Submission of building plans and development applications through the self-service portal.
M20	**Plan Review Workflow** — Multi-departmental review workflow (Lands, Physical Planning, Public Health, Fire, Environment).
M21	**Fee Computation** — Automatic computation of development approval fees based on project type, size and location.
M22	**Digital Plan Management** — Secure storage and retrieval of digital building plans.
M23	**Inspection Scheduling** — Scheduling and tracking of site inspections at various stages of construction.

No.	Description
M24	**Certificate Issuance** — Generation of development approval certificates, occupation certificates and clearance certificates.
M25	**Integration with Ardhi System** — Data exchange with Makueni Ardhi System for land-based clearances. (See Module AR.)
M26	**Public Utilities Mapping** — Mapping of public utilities for better planning. (See Module AP.)

Module N — Health Facility Revenue

No.	Description
N1	Integration with the hospital information management systems and eCHIS in use at County health facilities, using HL7/FHIR or documented REST APIs. (See Module AR.)
N2	Real-time tracking and aggregation of user fees, pharmacy, laboratory and other facility charges.
N3	Cashless collection at facility billing points, with receipts linked to the patient bill.
N4	Automatic reconciliation between facility receipts and the designated County or facility bank account.
N5	Revenue reporting by hospital, health center, dispensary and service category.

Module O — Transport & PSV Fees

No.	Description
O1	**PSV Registration** — Registration of public service vehicles (matatus, buses, boda bodas) operating within the County.
O2	**Route Permits** — Application and issuance of route permits with fee computation.
O3	**Motor Vehicle/Cycle Registration** — Registration and renewal of motor vehicles and motorcycles.
O4	**Terminal Fees** — Management of terminal entry and parking fees for PSVs.
O5	**Compliance Tracking** — Tracking of PSV compliance with licensing, insurance and inspection requirements.
O6	**Enforcement** — Management of PSV violations and penalties. (See Module Y.)

Module P — Other Revenue Streams

No.	Description
P1	**Conservancy Fees** — Management of conservancy fees.
P2	**Community Information Centers Fees** — Management of fees for community information centers.
P3	**Coop Audit Services Fees** — Management of cooperative audit service fees.
P4	**Renewal Fees (Kiosks)** — Management of kiosk renewal fees.
P5	**Makueni Fruit Processing Plant Fees** — Management of fees related to the fruit processing plant.
P6	**Fines & Penalties** — Management of all fines and penalties. (See Module G.)
P7	**Housing & Estate Rent** — Management of county housing and estate rental income. (See Module E.)

No.	Description
P8	**Education & Bursary Fees** — ECDE fees, bursary applications, school feeding programme.
P9	**Water & Sewerage Fees** — Where applicable, management of water and sewerage billing.
P10	**Wayleaves and Road Works** — Management of wayleave and road works fees. (See Module M6.)
P11	**Betting and Gaming** — Management of County levies on betting and gaming.
P12	**Sports and Other Streams** — Management of sports and other streams provided in the Finance Act, configurable without code changes.
P13	**Configurable Revenue Streams** — The system shall allow addition of new revenue streams without custom development.

PART E-II — SUPPORTING & ADMINISTRATIVE MODULES

Module Q — Reporting and Business Reports

No.	Description
Q1	Flexible, reliable and consistent real-time revenue reporting by, at a minimum: department, category, stream, zone, sub-county, ward and collector; collection channel (direct banking, mobile money etc.); period (daily, weekly, monthly, quarterly, yearly); and collected against expected revenue by stream.
Q2	Statistical and analytical tools to report on revenue performance and forecasts (graphs, charts).
Q3	Quick search of specific transaction records to answer citizen payment queries.

No.	Description
Q4	Remote web access to the reporting tool.
Q5	Detailed transaction log reports.
Q6	Export of transaction information in PDF, Word, CSV and Excel formats.
Q7	Executive summary report on the dashboard.
Q8	Analyzed reports using business intelligence tools.
Q9	Analysis of multidimensional data in web and office environments, with flexible dashboards and mobile access.
Q10	Role-based reporting.
Q11	A built-in report designer that County users can use independently to design, modify, schedule and deploy reports and other outputs.
Q12	Workflow KPI dashboards showing time taken per task and officer performance, exportable by the County.
Q13	**Real-Time Dashboards** — Executive dashboards showing daily, weekly, monthly and annual collections; performance against targets; revenue by stream, ward, sub-county; payment channel analysis; collector performance; compliance rates.
Q14	**Standard Reports** — Pre-built reports including daily collection reports, revenue by stream reports, arrears aging reports, compliance reports, enforcement reports, Receiver of Revenue reports.
Q15	**Custom Reports** — Self-service report builder for custom queries.
Q16	**GIS Dashboards** — Spatial visualization of revenue data. (See Module AP.)
Q17	**Export Options** — Export to Excel, PDF, CSV.
Q18	**Scheduled Reports** — Automated generation and email delivery of reports.
Q19	**Mobile Dashboards** — Executive dashboards accessible on mobile devices.

No.	Description
Q20	Standard Reports as stated in are mandatory, in the stated formats and frequencies,refer to annex 10 of this tender document.

Module R — Payment Channels

No.	Description
R1	Multiple payment options across different providers, including: (a) bank payments and direct debit; (b) mobile money from all major mobile money platforms operating in Kenya; (c) agents and agency banking; (d) cards; (e) chat-based messaging channels (e.g. WhatsApp). No single payment provider shall be exclusive.
R2	**Multi-Channel Payments** — Support for Mobile Money (M-Pesa, Airtel Money), USSD (*838#), bank transfers (RTGS, EFT, PesaLink), credit/debit cards, POS devices, cash at designated collection points, and the M-Pesa Super App.
R3	**Auto-Reconciliation** — Automatic reconciliation of payments from all channels. (See Module T.)
R4	**Payment Plans** — Management of instalment payment plans for licenses and other obligations.
R5	**Partial Payments** — Support for partial payments on property rates and rent.
R6	**Payment Reversal** — Workflow for payment reversals with approval.
R7	**Bank Integration** — Direct integration with commercial banks for real-time payment posting. (See Module AR.)
R8	**Mobile Money Integration** — Direct API integration with mobile money providers. (See Module AR.)
R9	Bank host-to-host integration using ISO 20022 and ISO 8583 messaging where applicable; reversals and chargebacks; offline queueing with synchronization .

Module S — Verification and Validation

No.	Description
S1	Electronic receipts and permits with a reference number, barcode and QR code, verifiable electronically by scanner or by query through USSD, SMS, mobile app or web.
S2	**Instant E-Receipts** — Immediate electronic receipt generation for all payments.
S3	**SMS/Email Delivery** — Automatic delivery of receipts via SMS and email. (See Module AD.)
S4	**QR Code Verification** — QR codes on receipts for authenticity verification.
S5	**Receipt Reprint** — Secure reprint capability for lost receipts.
S6	**Daily Collection Reports** — Automated daily collection reports by collector/channel. (See Module Q.)

Module T — Reconciliation and Settlement

No.	Description
T1	Automatic reconciliation matching payments to account numbers and other identifiers.
T2	Timely direct credit to County Government of Makueni revenue bank accounts.
T3	Support for multiple revenue streams based on codes, e.g. land rates, advertising and trade licenses.
T4	Tracking of the reconciliation process and viewing of reconciled items.
T5	**Bank Statement Import** — Import of bank statements in standard formats (MT940, CSV, Excel).
T6	**Auto-Matching** — Automatic matching of bank transactions to system receipts.
T7	**Exception Handling** — Flagging and resolution of unmatched transactions.

No.	Description
T8	**Reconciliation Reports** — Generation of bank reconciliation statements.
T9	**Multi-Bank Support** — Support for multiple bank accounts and revenue streams.
T10	Daily T+1 matching to bank and wallet statements, exception worklists with closure SLAs, and not more than 1% unresolved after T+3.

Module U — Security

These terms have been captured in TR-3 (Security).

Module V — Risk Management

No.	Description
V1	The tenderer shall describe its approach to risk management, showing how risk is identified, recorded, communicated, mitigated and monitored throughout the project, covering the requirements in **Part M6** and this Module V (risk categories, assessment matrix, mitigation, risk register and quarterly reviews, and business continuity plan with annual drills).
V2	Risk identification across at least these categories: data (loss, corruption, unauthorized access, inaccurate revenue computation); system security (cyber-attacks, internal breaches, phishing); compliance and regulatory; operational (downtime, integration failure, configuration error); performance (slow response, inability to scale); user (misuse, inadequate training, unauthorized changes); and third-party and vendor risks.
V3	A risk assessment matrix rating each risk by impact and likelihood.
V4	Mitigation strategies for each category, including backups and replication, validation rules, encryption, periodic audits, layered security, RBAC and two-factor authentication, periodic penetration testing, segregation of duties, approval workflows for overrides, and monitoring and alerting.
V5	Risk monitoring and reporting through a centralized risk register, dashboards and quarterly risk reviews with the County.

No.	Description
V6	A business continuity plan covering total system failure, major data breach and staff unavailability, with key personnel trained on their roles and annual continuity drills.
V7	Continuous improvement, incorporating lessons from incidents, user feedback and emerging risks such as technology-enabled fraud.
V8	The risk register shall include, as a minimum, risks R1 to R12 with owner, mitigation, contingency and key risk indicator, reviewed quarterly with the County. refer to annex 5 of this tender document.

Module W — Change Management

No.	Description
W1	The tenderer shall describe its approach to change management, what will be affected by the change, and how it will ensure a seamless transition without disrupting County operations.
W2	**Training Needs Assessment** — Assessment of training requirements by user group. (See Part L.)
W3	**Training Materials** — Development of user manuals, quick reference guides and video tutorials. (See Part L.)
W4	**Training Delivery** — Classroom and online training for all user groups. (See Part L.)
W5	**Train-the-Trainer** — Certification of internal trainers for sustainability. (See Part L.)
W6	**Change Management Plan** — Comprehensive change management strategy.
W7	**User Adoption Tracking** — Monitoring of user adoption and intervention where needed.
W8	**Knowledge Base** — Self-service knowledge base for common issues. (See Module X.)

No.	Description
W9	The Change Management Plan shall follow the correct structure and be approved by the County before any go-live. Adoption targets: not less than 90% of targeted users trained, competency scores of 80% or more, satisfaction of 80% or more. ***Refer to Annex 9 of this tender document***

Module X — Support Plan

No.	Description
X1	The tenderer shall describe its approach to product support immediately after go-live and thereafter, identifying the resources required, the people involved, the types of calls expected and what the County is expected to do, taking into account the County's existing investment in IT support.
X2	**Helpdesk System** — Ticketing system for issue tracking and resolution.
X3	**SLA Management** — Response and resolution times by severity level. (See **Part N2**.)
X4	**Knowledge Base** — Searchable knowledge base for common issues.
X5	**Remote Support** — Remote desktop support capability.
X6	**Onsite Support** — Onsite support during critical periods (month-end, year-end).
X7	**Maintenance Schedule** — Preventive maintenance schedule.
X8	**Upgrade Management** — Management of software updates and upgrades.
X9	**Performance Monitoring** — Continuous monitoring of system performance.
X10	The contractor's helpdesk shall operate alongside the County ICT Directorate help desk, which coordinates first-line support, change management and periodic training .

Module Y — Enforcement

No.	Description
Y1	Enforcement of revenue collection using technology, i.e. QR codes, barcodes, unique identifiers and mobile applications.
Y2	**Inspection Management** — Scheduling, assignment and tracking of compliance inspections.
Y3	**Violation Capture** — Mobile app for capturing violations with photo evidence, GPS coordinates and offender details.
Y4	**Digital Notices** — Generation and delivery of compliance notices and penalty notices. (See Module AD.)
Y5	**Case Management** — Tracking of enforcement cases from violation to resolution.
Y6	**Prosecution Management** — Integration with county attorney and prosecutors for court cases.
Y7	**Penalty Computation** — Automatic computation of penalties as per the Finance Act.
Y8	**Dedicated Enforcement Unit** — Support for the County Revenue Authority's enforcement and inspectorate services.
Y9	**Reporting** — Enforcement activity reports, compliance rates and revenue recovered. (See Module Q.)

Module Z — Revenue Collectors' Management

No.	Description
Z1	Management of revenue collectors and enforcement officers, including transfers, leave and sick-off.
Z2	Registration of external collection agents.
Z3	Assignment of collectors to sources and targets.

Module AA — Accountable Documents Management

No.	Description
AA1	Management of accountable documents associated with revenue collection, e.g. invoice books, permit paper and other hard-copy books.
AA2	Issuance, tracking and reconciliation of accountable documents to officers.
AA3	Reporting on used, unused and lost accountable documents.

Module AB — Customer Relationship Management

No.	Description
AB1	Real-time engagement with customers, including logging, tracking and escalation of enquiries, complaints and service requests from all channels.
AB2	A single customer view across all revenue streams, with interaction history.
AB3	Automatic notification of non-compliant customers and revenue assets. (See Module AD.)

Module AC — Online Document Management and Approval

No.	Description
AC1	Online submission, routing, digital signing and approval of documents, removing the physical movement of files (e.g. plan approvals, food handler certificates, licenses).
AC2	Document version control, audit trail of each approval step and secure storage linked to the customer and application record.

Module AD — Messaging and Notifications

No.	Description
AD1	A messaging module supporting SMS, bulk SMS, email and chat-based messaging, for two-way communication between citizens and the County.
AD2	Configurable notification templates and triggers (bills, payments, renewals, penalties, application status).
AD3	**Multi-Channel Notifications** — SMS, email, in-app and USSD notifications.
AD4	**Template Management** — Configurable message templates with merge fields.
AD5	**Trigger-Based Notifications** — Automatic notifications for bill generation, payment confirmation, approval requests, renewal reminders, enforcement notices and arrears warnings.
AD6	**Bulk Messaging** — Capability for bulk SMS campaigns for sensitization.
AD7	**Delivery Tracking** — Tracking of notification delivery status.

Module AE — Citizen Self-Service Portal

No.	Description
AE1	The application shall have a Smart County portal in the form of a mobile app and web app. Any citizen shall be able to register and download the relevant app from the County portal.
AE2	The application shall have an integrated citizen-facing self-service portal, through web and app, deployable on the public network and available to citizens 24/7/365.
AE3	The citizen portal shall be multilingual (English and Kiswahili at a minimum) and shall persist each citizen's language preference.
AE4	Application processes shall be available on USSD, Android and iOS devices as well as the web, with centralized authentication and session management.
AE5	The USSD collection channel shall be integrated natively with billing and receipting.
AE6	The portal shall deliver digital certificates, licenses and permits, with a customized receipt per payment type and a service portal per department.
AE7	**Web Portal** — Self-service portal for taxpayer registration, bill inquiry, online payments, receipt download, application submissions, complaint/feedback submission and statement viewing.
AE8	**Mobile App** — Android and iOS apps with account management, bill payment, receipt storage, application tracking, notifications and offline capability for receipts.
AE9	**USSD Access** — USSD (*838#) for basic services including payment and balance inquiry.
AE10	**MyMakueni Integration** — Integration with existing MyMakueni County App. (See Module AR.)
AE11	**Sema na Governor Feature** — Integration with the citizen feedback channel.
AE12	**OTP Login & WCAG** — Taxpayer portal with OTP login and WCAG compliance.
AE13	**Low-Bandwidth USSD** — Low-bandwidth USSD access.

No.	Description
AE14	**Offline-First Apps** — Officer and taxpayer apps with offline-first design.
AE15	**Accessibility & Multilingual** — Accessibility standards and multilingual (English/Kiswahili) support.

Module AF — Collectors' and Enforcers' Mobile Application

No.	Description
AF1	County revenue management users shall be able to assign officers to collect revenue from selected areas or properties.
AF2	County officers shall be able to issue demand notices and collect payment, issuing receipts from the connected printer.
AF3	County officers shall be able to update personal, ownership and geographical information of properties.
AF4	**Offline/Online Mode** — Full functionality in offline mode with sync when connectivity is available.
AF5	**Instant Receipting** — SMS e-receipts issued immediately upon payment.
AF6	**GPS Tagging** — Automatic GPS tagging of collection location.
AF7	**Collector Authentication** — Secure login with biometric or PIN authentication.
AF8	**Daily Collection Summary** — End-of-day collection summary and remittance tracking.
AF9	**Target Tracking** — Real-time view of collector targets vs. actuals.
AF10	**Payment Acceptance** — Cash and mobile money payment acceptance with instant reconciliation.
AF11	**Enforcement Capture** — Violation capture with photos and GPS.

Module AG — Workflow & Approvals

No.	Description
AG1	All system operations shall be processed through configurable, guided workflows.
AG2	Workflows shall be customizable while the system is running (dynamic design / hot deployment).
AG3	Workflows shall capture the time taken for each task and link it to officer KPIs for performance monitoring.
AG4	Users shall be able to filter items by workflow progress, including items at a particular point, outstanding or late items, and items assigned to a specific person, role or group.
AG5	Functions shall be linkable to workflow tasks and, where possible, completed automatically.
AG6	The status of a work item shall update automatically on completion of activated tasks.

Module AH — Standard, Dynamic and Configurable Views

No.	Description
AH1	Summary views of work shall be available by unit, domain, zone and organization.
AH2	Lists shall be filterable and sortable by any displayed column.
AH3	Views shall drill down to transaction level.
AH4	Users shall be able to customize views by adding and rearranging columns.
AH5	Users shall be able to save changes to views and create personal views.
AH6	Changes to common views shall be restricted to authorized administrators.

Module AI — Taxpayer/Customer Registration & Management

No.	Description
AI1	**Unified Taxpayer Register** — Single register of all taxpayers across all revenue streams with unique taxpayer identification.
AI2	**KYC Management** — Capture and verification of taxpayer details including national ID, KRA PIN, business registration, contacts.
AI3	**TIN Integration** — Integration with KRA for TIN verification. (See Module AR.)
AI4	**Taxpayer Portal** — Self-service portal for registration, profile management and account inquiries. (See Module AE.)
AI5	**Taxpayer Statement** — Consolidated statement of all obligations and payments across revenue streams.
AI6	**Communication Preferences** — Management of SMS, email and physical address preferences.
AI7	**Taxpayer Segmentation** — Categorization by business type, size, location and compliance status.
AI8	Customer/ratepayer ledgers with running balances and aging analysis.
AI9	Transaction ledgers with SCOA coding.
AI10	Multi-criteria search.
AI11	Bulk import/export CSV/Excel with validation.
AI12	Detect and flag duplicate accounts.
AI13	Maintain full interaction history.
AI14	Store and retrieve supporting documents.

Module AJ — Billing & Invoicing

No.	Description
AJ1	**Unified Billing** — Generation of consolidated bills covering multiple revenue streams (as implemented by the County's Unified Billing concept).
AJ2	**Automated Bill Generation** — Scheduled generation of bills for periodic charges (rates, rent, licenses).
AJ3	**E-Invoicing** — Electronic delivery of invoices via SMS, email and taxpayer portal.
AJ4	**Demand Notices** — Automated generation and tracking of demand notices for overdue accounts.
AJ5	**Bill Adjustment** — Workflow for bill adjustments, credits and corrections.
AJ6	**Bill Inquiry** — Online bill inquiry for taxpayers and customer service officers.
AJ7	Mass billing of ≥100,000 invoices in <30 minutes (cross-ref Part D48, TR-5.4).
AJ8	Configure billing frequencies.

Module AK — Arrears & Debt Management

No.	Description
AK1	**Aging Analysis** — Classification of arrears by age (30, 60, 90, 180+ days).
AK2	**Automated Demand Letters** — Generation and delivery of demand letters at configurable intervals.
AK3	**Instalment Plans** — Setup and management of instalment plans for defaulters.
AK4	**Waiver Management** — Workflow for processing waivers with multi-level approval.
AK5	**Write-Off Management** — Workflow for write-offs with approval and audit trail.
AK6	**Debt Recovery Tracking** — Tracking of recovery efforts and outcomes.

No.	Description
AK7	**Credit Reference Bureaus** — Reporting of defaulters to CRBs where legally permissible.
AK8	Automated reminders with escalation.
AK9	Restriction of repeat offenders.

Module AL — Revenue Accounting & GL Integration

No.	Description
AL1	**Chart of Accounts** — Configurable chart of accounts aligned with the County's accounting structure.
AL2	**Journal Entries** — Automatic generation of journal entries for all revenue transactions.
AL3	**IFMIS Integration** — Seamless integration with IFMIS. (See Module AR.)
AL4	**Trial Balance** — Real-time trial balance generation.
AL5	**Accrual Accounting** — Support for accrual basis accounting as per IPSAS.
AL6	**Revenue Recognition** — Proper revenue recognition in compliance with accounting standards.
AL7	**Audit Trail** — Complete audit trail of all accounting transactions.
AL8	**Receiver of Revenue Reporting** — Support for quarterly Receiver of Revenue reports as required by Section 158 of the PFM Act, 2012.
AL9	Daily ledger posting and reporting with system lock.
AL10	Period lock; roll forward balances; monthly reports.
AL11	Fiscal year closure; carry forward arrears.

No.	Description
AL12	SCOA-coded exports compatible with IFMIS.

Module AM — Budgeting & Revenue Forecasting

No.	Description
AM1	**Revenue Targets** — Setting of annual and quarterly revenue targets by stream, ward and collector.
AM2	**Actual vs. Target** — Real-time comparison of actual collections against targets.
AM3	**Forecasting Models** — Trend-based and historical revenue forecasting.
AM4	**Scenario Analysis** — What-if analysis for policy changes and rate adjustments.
AM5	**Integration with Budget Process** — Data export to support the County's budget preparation process.
AM6	**MTEF Support** — Support for Medium-Term Expenditure Framework revenue projections.
AM7	Categories streams by ward/market; set targets.

Module AN — User & Role Management

No.	Description
AN1	**Role-Based Access Control** — Granular role definitions with specific permissions.
AN2	**User Management** — User creation, modification, deactivation and password management.
AN3	**Multi-Level Approvals** — Configurable approval hierarchies for transactions, waivers and adjustments.

No.	Description
AN4	**Single Sign-On** — Support for SSO integration with county identity systems.
AN5	**Multi-Factor Authentication** — MFA for all back-office and field users, especially administrators and approvers.
AN6	**Access Reviews** — Periodic access review and recertification.
AN7	**Delegation** — Temporary delegation of duties with audit trail.
AN8	Register revenue staff with roles.
AN9	Register external collection agents.
AN10	Real-time staff/agent performance metrics.

Module AO — Workflow & Approvals

No.	Description
AO1	**Configurable Workflows** — Workflow design tool for defining approval processes.
AO2	**Escalation** — Automatic escalation of pending approvals based on SLA.
AO3	**SLA Tracking** — Monitoring and reporting of approval turnaround times.
AO4	**Notifications** — Email and SMS notifications for pending approvals.
AO5	**Mobile Approval** — Approval capability via mobile app.
AO6	**Audit Trail** — Complete workflow audit trail.

Module AP — GIS Integration

No.	Description
AP1	**Property Mapping** — Integration with GIS for property and plot mapping.
AP2	**Revenue Heat Maps** — Spatial visualization of revenue density and compliance.
AP3	**Route Optimization** — Route optimization for field collectors and enforcement officers.
AP4	**Public Utilities Mapping** — Mapping of public utilities for planning.
AP5	**Spatial Analytics** — Analysis of revenue patterns by location.
AP6	**Integration with Ardhi GIS** — Data exchange with Makueni Ardhi System GIS layers.
AP7	Geo-reference revenue sources with shapefile/GeoJSON.
AP8	Maps and spatial reports.

Module AQ — Data Migration & Cleansing

No.	Description
AQ1	**Legacy Data Extraction** — Extraction of data from existing systems (Ardhi, manual registers, spreadsheets).
AQ2	**Data Cleansing** — Identification and correction of data quality issues (duplicates, inconsistencies, missing fields).
AQ3	**Data Validation** — Validation against business rules before migration.
AQ4	**Migration Reporting** — Detailed reports of migrated, cleansed and rejected records.
AQ5	**Reconciliation** — Reconciliation of migrated data with source systems.

No.	Description
AQ6	**Business Census Data** — Integration of business census and mapping data (27,000+ businesses).
AQ7	**Data Inventory and Assessment** — Identify all data sources and types to be migrated and evaluate their quality and accuracy.
AQ8	**Data Mapping and Transformation** — Develop a mapping strategy and transformation rules to the new format and the chart of accounts.
AQ9	**Data Extraction and Cleansing** — Extract data with integrity maintained, and cleanse it.
AQ10	**Data Loading and Validation** — Load data and verify accuracy, completeness and consistency through validation tests and reconciliation of migrated balances, signed off by the County.
AQ11	**Rollback Plan** — Maintain a contingency plan to revert to existing systems if migration fails, with source systems kept read-only until the County accepts the migration.
AQ12	Migration shall follow every phase as stipulated in Annex 8 of this tender document. The County Data Protection Officer signs off privacy compliance of the migration.

Module AR — Integration & Interoperability

(Normative for all integrations. TR-2 summarizes; Module AR is the detailed specification.)

No.	Description
AR1	**IFMIS Integration** — Bi-directional integration with national IFMIS for financial reporting.
AR2	**eCitizen Integration** — Integration with eCitizen for business registration and permit data.
AR3	**Bank Integration** — Real-time integration with commercial banks for payment posting.

No.	Description
AR4	**Mobile Money Integration** — Direct API integration with M-Pesa and other mobile money providers.
AR5	**Ardhi System Integration** — Data exchange with Makueni Ardhi System (lims.makueni.go.ke).
AR6	**MyMakueni App Integration** — Integration with MyMakueni County App.
AR7	**KRA Integration** — TIN verification and tax compliance data exchange.
AR8	**CRB Integration** — Reporting of defaulters to Credit Reference Bureaus where legally permissible.
AR9	**National ID Integration** — Verification of national identification numbers.
AR10	**RESTful APIs** — Standard APIs for all integrations.
AR11	**API Management** — API gateway, documentation and security.
AR12	**NTSA Integration** — Vehicle registration details for parking and enforcement.
AR13	**IPRS Integration** — Identity verification.
AR14	**BRS Integration** — Business registration verification.
AR15	**Health Systems Integration** — HL7/FHIR or documented REST interfaces for real-time exchange with County hospital information systems and eCHIS.
AR16	**SMS, Email and Chat-Based Messaging Gateways** — Notifications and customer engagement.
AR17	**National Revenue/Reporting Platforms** — Any platform designated by the National Treasury, CRA or Controller of Budget during the contract, shall be handled through change control.
AR18	**API Security** — OAuth 2.0, API keys, rate limiting and IP whitelisting.

No.	Description
AR19	**API Uptime and Latency** — Uptime ≥99%; latency ≤2 s.
AR20	**API Standards** — REST/JSON APIs; OAuth 2.0/OpenID.
AR21	Mutual TLS for sensitive transactions; versioned APIs with rate limits; sandbox credentials, OpenAPI documents, sample payloads, an error catalogue and integration test cases for every mandatory integration .

Module AS — Disaster Recovery & Business Continuity

No.	Description
AS1	**Automated Backup** — Scheduled backups of all data and configurations.
AS2	**Offsite Replication** — Replication to secondary site or cloud.
AS3	**Disaster Recovery Site** — DR site with failover capability.
AS4	**Recovery Testing** — Regular DR testing against the RPO/RTO in **TR-3.7**.
AS5	**Business Continuity Plan** — Documented BCP for revenue operations during system downtime.
AS6	**Offline Continuity** — Mobile apps with offline capability for continued collection during outages (see **TR-1.5** and Glossary).
AS7	**Hosting** — The contractor shall host production and disaster recovery environments in Tier III (or equivalent) facilities in Kenya, at geographically separate sites, unless the County elects to host in its own data center.
AS8	**Environments** — The contractor shall provide separate development, test/training and production environments. Test and training environments shall use anonymized data.

No.	Description
AS9	**Super-Administrator Access** — The contractor shall give the County super-administrator credentials and read access to all environments, logs and monitoring dashboards.
AS10	**Backup and Restoration** — The contractor shall provide automated daily backup with verified restoration, and shall train County ICT staff on backup monitoring and restoration procedures.
AS11	**DR Testing** — The contractor shall conduct a full disaster recovery test before go-live and at least annually, and submit a report to the County demonstrating achievement of the RPO and RTO in **TR-3.7**.
AS12	In-country DR site with RPO not more than 15 minutes and RTO not more than 2 hours; daily full and hourly incremental backups; quarterly restore tests; bi-annual DR drills; quarterly automatic failover tests; a BCP with manual fallback procedures, a communication tree and notification templates; and a separate training environment in addition to development, test and production.

PART F — TECHNICAL REQUIREMENTS SCHEDULES

Instructions to Tenderers

1. **Purpose.** This Form shall be completed by every tenderer and submitted as part of the technical proposal. It is the form on which the tenderer responds line-by-line to every specification in **Part F (TR-1 to TR-11)** of the TOR.
2. **Completeness.** Every specification in TR-1 to TR-11 must appear in this Form. A missing row is treated as "No."
3. **Response values.** The "Response" column must contain only **Yes**, **No** or **Partial**. Blank cells are treated as "No." No other value is permitted.
4. **Mandatory specifications.** A "No" against any **Mandatory** specification renders the tender **non-responsive at Stage 2**. A "Partial" against a Mandatory specification is treated as "No" unless the County accepts it in writing before the deadline for clarifications.
5. **Preferred and Optional specifications.** These may be answered Yes, No or Partial. They do not affect responsiveness; they are scored under Part U.
6. **Evidence.** "Yes" against a Mandatory specification must be supported by evidence referenced in column 6 (page and section of the technical proposal). An unsupported "Yes" may be downgraded to "Partial" at the County's discretion.
7. **Narrative.** Column 5 ("How met") shall contain a minimum of 50 words for each Mandatory specification, naming the product/module and version where relevant.
8. **No paraphrase.** The specification text in column 2 must be reproduced exactly as written in Part F. Do not paraphrase.
9. **Certification.** The Form must be signed and dated by an authorized representative of the tenderer.
10. **Submission.** Submit one completed Form in the technical proposal, in both PDF and editable (XLSX) format.

PART 1 — TENDERER DETAILS

Item	**Tenderer's response**
Name of tenderer	
Company registration number	
KRA PIN	
Physical address	
Postal address	
Telephone	
Email	
Name of authorized representative	
Position of authorized representative	
Date of submission	
Tender reference number	
Proposed solution name and version	

TR-1 — System Architecture

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-1.1	Modular, service-oriented or micro services-based architecture with an API gateway	Mandatory				
TR-1.2	On-premise, cloud or hybrid deployment, with redundancy and provision for scalability	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-1.3	Minimum : 2,000 concurrent users; scalable to 10,000 or more without degradation	Mandatory				
TR-1.4	Responsive user interface compatible with desktop, mobile and tablet, with role-based menus	Mandatory				
TR-1.5	Offline data capture with	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	automatic synchronization when connectivity is restored					
TR-1.6	Minimum 99.5% system uptime per calendar month, excluding scheduled maintenance	Mandatory				
TR-1.6A	Failover and load balancing sufficient to sustain the	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	uptime in quarterly failover tests					
TR-1.7	Average response time of 3 seconds or less for 95% of transactions	Mandatory				
TR-1.7A	Billing, payment posting and receipting complete within 2 seconds under normal load.	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-1.8	Multi-tenancy and public or private cloud without lock-in to a single provider	Mandatory				
TR-1.9	Three-tier architecture separating presentation, application and database layers	Mandatory				
TR-1.10	Organizational roles and administrative units, supporting	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	flexible reorganization without code changes					
TR-1.11	Stateless APIs and a message queue for asynchronous jobs; scale to 200% of projected 5-year volumes with defined auto-scaling thresholds .	Mandatory				
TR-1.12	Not less than 1,200	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	transactions per second across all channels at peak, proven by load test					
TR-1.13	Separate development, test, training and production environments with controlled promotion of configuration	Mandatory				

TR-2 — Integration

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-2.1	Integration with existing County systems (Ardhi, MyMakueni App, LAIFORMS, IPPD, eCHIS)	Mandatory				
TR-2.2	Integration with national systems	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	(IFMIS, eCitizen, NTSA, IPRS, BRS, KRA)					
TR-2.3	Integration with banks, mobile money providers, card acquirers and payment gateways	Mandatory				
TR-2.4	RESTful APIs with OpenAPI/Swagger	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	documentation, API gateway and security; latency ≤2 s; uptime ≥99%					
TR-2.5	Two-way push/pull data exchange	Mandatory				
TR-2.6	API security: OAuth 2.0, API keys, rate limiting and IP whitelisting	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-2.7	HL7/FHIR or documented REST APIs for hospital information systems and eCHIS	Mandatory				
TR-2.8	Mutual TLS for sensitive transactions; OAuth 2.0 or OpenID on all integrations with IPRS, BRS, NTSA, HMIS and GIS	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-2.9	Bank host-to-host services, ISO 20022 and ISO 8583 where applicable, and mobile money APIs, with automated reconciliation	Mandatory				
TR-2.10	Sandbox credentials, OpenAPI documents, sample payloads, error catalogue and integration	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	test cases for all mandatory integrations					
TR-2.11	Two-way IFMIS integration with SCOA mapping enforced on all transactions; SCOA-coded export imported successfully into an IFMIS test environment	Mandatory				

TR-3 — Security

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-3.1	ISO/IEC 27001, PCI DSS (for card flows, directly or through a compliant provider), Data Protection Act, 2019 and OWASP Top 10	Mandatory				
TR-3.2	AES-256 (or equivalent) for data at	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	rest; TLS 1.2 or higher in transit, TLS 1.3 on public endpoints					
TR-3.3	Role-based access control and two-factor authentication for administrators and field users; MFA for all back-office and field users	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-3.4	Immutable activity logs recording user, timestamp, IP address and action	Mandatory				
TR-3.5	Enforced referential integrity; separate database access roles for application services and administration	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	(least privilege)					
TR-3.6	Firewalls, IDS/IPS, segmented network design, and VPN access for remote administrative users	Mandatory				
TR-3.7	Encrypted daily full and hourly tests; in-country DR site; RPO 15	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	minutes or less; RTO 2 hours or less; bi-annual DR drills. incremental backups; quarterly restore					
TR-3.8	Automatic timeout, password policy and brute-force protection	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-3.9	Independent vulnerability assessment and penetration testing before go-live and at least annually	Mandatory				
TR-3.10	Data processing agreement with the County; Data Protection Impact Assessment before go-	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	live; retention and deletion in line with County policy and the law					
TR-3.11	Quarterly vulnerability scans and annual penetration tests; critical vulnerabilities remediated within 30 days and high within 60 days	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-3.12	MFA for all privileged and administrative accounts; SSO via SAML and OpenID Connect	Mandatory				
TR-3.13	RBAC and ABAC enforcing least privilege, segregation of duties and maker-checker	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-3.14	AES-256 at rest with a documented key rotation schedule	Mandatory				
TR-3.15	DPIA for every module, consent and notice mechanisms, privacy by design	Mandatory				
TR-3.16	Authorized device registry, session	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	timeouts, concurrent login limits and remote wipe					
TR-3.17	Anti-tamper protection; tamper-evident hashed audit logs retained for not less than 7 years	Mandatory				
TR-3.18	Compliance with the Government	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	Enterprise Architecture, the Government Interoperability Framework and the OWASP Application Security Verification Standard					

TR-4 — Data Management and Storage

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-4.1	Enterprise-grade relational database (e.g. PostgreSQL, MySQL or MS SQL Server), with spatial support for GIS data	Mandatory				
TR-4.2	Logical partitioning by sub-	Preferred				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	county, ward and revenue stream					
TR-4.3	Configurable data archival and purge schedules	Mandatory				
TR-4.4	Version tracking and modification history of fees, invoices and transactions, so historical values,	Preferred				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	arrears and waivers remain traceable					
TR-4.4 A	Version history of tariffs and rules with effective and expiry dates, reason codes and audit trail.	Mandatory				
TR-4.5	Built-in analytical dashboards	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	and data export (CSV, Excel, PDF)					
TR-4.6	Data import, export and migration tools for bulk loading and migration from legacy systems	Mandatory				
TR-4.7	LTS operating systems;	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	ACID-compliant relational database; read replicas for analytics workloads					
TR-4.8	Archive inactive records after two years; purge only after the 7-year retention period with multi-level	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	authorization and audit logging					
TR-4.9	Validation rules and enforced mandatory fields; migration tools for mapping, cleansing, trial loads and reconciliation	Mandatory				

TR-5 — Performance and Optimization

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-5.1	Multi-threaded and asynchronous transaction processing (e.g. message queues) for billing, payment and notification flows	Mandatory				
TR-5.2	Caching layer (e.g. Redis or Memcached) for	Preferred				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	frequently accessed data					
TR-5.3	Load balancing and clustering, supporting active-active or active-passive deployment	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-5.4	Bulk billing and bulk reconciliation for large transaction volumes,	Mandatory				
TR-5.5	Enterprise-grade redundant infrastructure; NVMe or SAN storage for the database; TLS termination	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	at the load balancer					

TR-6 — User Management and Access Control

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-6.1	Administrator, revenue officer, auditor, supervisor, enforcement officer and citizen roles, configurable by the County	Mandatory				
TR-6.2	LDAP / Active Directory and	Preferred				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	OAuth 2.0 support					
TR-6.3	Minimum 8 characters, complexity rules, expiry every 90 days	Mandatory				
TR-6.4	Automatic logout after inactivity; lockout after failed attempts	Mandatory				

TR-7 — System Monitoring and Logging

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-7.1	Centralized monitoring dashboard (e.g. ELK, Grafana, Prometheus or equivalent), accessible to County ICT	Preferred				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-7.1 A	Centralized logging (ELK or equivalent), performance metrics, APM traces and configured alert thresholds.	Mandatory				
TR-7.2	Real-time alerts for downtime, anomalies, resource thresholds	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	and failed transactions					
TR-7.3	Centralized log repository with indexed search and automatic archiving	Mandatory				
TR-7.4	Exportable audit trail and access logs	Mandatory				

TR-8 — Interoperability and Standards

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-8.1	JSON, XML and CSV with UTF-8 encoding	Mandatory				
TR-8.2	Adherence to ICT Authority interoperability standards	Mandatory				
TR-8.3	English and Kiswahili interfaces	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-8.4	OpenAPI/Swagger or equivalent documentation	Mandatory				
TR-8.5	Alignment with the Standard Chart of Financial Accounts used by the County and CBK payment standards	Mandatory				
TR-8.6	SCOA means the National Treasury	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	Standard Chart of Accounts; all revenue items mapped before billing					

TR-9 — Hosting and Infrastructure

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-9.1	Tier III (or equivalent)	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	data centers in Kenya for production and DR, at geographically separate sites, or deployment in the County data center					
TR-9.2	Stable, supported open-source or commercial OS (e.g. Linux LTS or	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	Windows Server)					
TR-9.3	Nginx, Apache, IIS or equivalent	Mandatory				
TR-9.4	Modern supported runtimes (e.g. Java, Node.js or .NET)	Preferred				
TR-9.5	Docker / Kubernetes or equivalent for scalability	Preferred				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-9.6	RAID-enabled, scalable storage of at least 5 TB	Mandatory				
TR-9.7	UPS, backup generator and failover capability at hosting sites	Mandatory				
TR-9.8	Where hosted on premises: UPS, generator, controlled physical	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	access, CCTV and environmental monitoring					
TR-9.9	Security and total cost of ownership assessment for the chosen hosting option	Mandatory				

TR-10 — Support, Maintenance and Documentation

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-10.1	Complete system, API and administration documentation, user manuals and DR procedures	Mandatory				
TR-10.2	Git-based repository with standard branching and	Preferred				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	release practices					
TR-10.2 A	CI/CD pipeline with SAST and DAST, an artefact repository and infrastructure-as-code.	Mandatory				
TR-10.3	Response and resolution per the SLA in Part N	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-10.4	Quarterly and annual Finance Act updates, without downtime	Mandatory				
TR-10.5	Administrator and end-user training manuals	Mandatory				
TR-10.6	Rules and workflow engine allowing authorized	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	County users to change tariffs, fees, approval levels and business rules without developer involvement, with hot deployment, maker-checker approval and audit logging					

TR-11 — Future Proofing and Extensibility

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-11.1	New revenue streams and modules added through configuration without core code changes	Mandatory				
TR-11.2	Integration-ready for future national systems through adapters and REST APIs	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-11.3	Deployable on major public clouds (e.g. AWS, Azure, GCP) or equivalent	Preferred				
TR-11.4	Support for AI/ML-based revenue forecasting and fraud or anomaly detection	Optional				
TR-11.5	Documented open data schemas; full	Mandatory				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
	export of County data at any time in SQL, CSV and JSON at no cost; County ownership of all data, configuration and County-specific customizations; core source code in escrow .					

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-11.6	New revenue streams with tariffs, SCOA codes, workflows and report templates added without vendor intervention	Mandatory				
TR-11.7	Revenue and arrears forecasting from historical data	Preferred				

1. Spec No.	2. Specification	3. Type	4. Response (Yes/No/Partial)	5. How met (min. 50 words for Mandatory)	6. Evidence reference (page/section)	7. Remarks
TR-11.8	Annex 1 completed with every Mandatory (M) item answered Yes and evidenced	Mandatory				

Declaration: If any Mandatory specification is answered "No" or left blank, the tenderer acknowledges that the tender shall be treated as non-responsive at Stage 2.

PART 4 — CERTIFICATION

I, the undersigned, being duly authorized to represent the tenderer named in Part 1, certify that:

1. The responses in this Form TECH-5 are accurate, complete and made in good faith.
2. Every specification in TR-1 to TR-11 of the TOR has been addressed.
3. The evidence referenced in column 6 is included in the technical proposal submitted with this Form.
4. I understand that a "No" against any Mandatory specification renders the tender non-responsive at Stage 2, and that a "Partial" against a Mandatory specification is treated as "No" unless the County accepts it in writing before the deadline for clarifications.
5. I understand that an unsupported "Yes" may be downgraded to "Partial" at the County's discretion.

Name of authorized representative:	
Position:	
Signature:	
Date:	
Company stamp:	

PART G — TECHNICAL REQUIREMENTS FOR PRACTICAL DEMONSTRATION

Tenderers shall indicate compliance (Yes/No) against each item and shall demonstrate each item at **Stage 3** of the evaluation (see Part V).

No.	Tender Requirement	Practical Demonstration	Yes/No	Remarks
1	GIS capabilities of the revenue management system	Capture signage description and plot location description; capture geolocation of signage, plots, businesses, markets etc.; assign and restrict staff and devices to administrative units; assign revenue assets to administrative units		
2	Real-time direct deposit	Real-time synchronization to County systems and automatic reconciliation, without any request from the client to submit proof of the County office		
3	Real-time transactions with batch processing	Integrated back office and online dashboard		
4	Abilities of the proposed system	User registration module and access rights management; business registration and single business permits; property owner and property registration management; house tenant registration and rent reconciliation; classification of revenue streams and charges per the approved Finance Act		

No.	Tender Requirement	Practical Demonstration	Yes/No	Remarks
5	Multiple payment channels: mobile money, debit/credit card, RTGS/EFT and direct bank deposit	Mobile money from more than one operator; USSD, Android, iOS and Windows applications; card payment on the portal and on the POS device; automatic reconciliation of each channel; agency banking and kiosk collection		
6	Multiple revenue sources	Parking, markets, rates, rent, billboards, permits and cess		
7	Compliance with CRA guidelines on own-source revenue	Integration with existing systems, namely IFMIS; compliance with the government Standard Chart of Accounts		
8	Flexible, integrated reports	Business intelligence, including revenue forecasting and variance analysis		
9	Server architecture	Demonstrate a three-tier architecture (presentation, application and database layers) as required by **TR-1.9**		
10	Open APIs	Demonstrate open API integration with existing County systems		
11	SCOA enforcement	Attempt to bill an item not mapped to SCOA; the system must block it		
12	Configuration without code	Change a rate and create a new revenue stream with tariff, SCOA code and report template, then bill it, without vendor intervention		

No.	Tender Requirement	Practical Demonstration	Yes/No	Remarks
13	Waiver control	Process a penalty waiver with threshold, reason code, attachment and maker-checker; show the audit trail		
14	Reconciliation	Import a bank and M-Pesa statement file, auto-match, and show the exception worklist		
15	Offline operation	Bill, receipt and issue an e-ticket offline on a POS device, reconnect, and show synchronized records with integrity intact		
16	Duplicate control	Create duplicate records; show detection, flagging and merge with audit trail		
17	Audit log integrity	Export the audit log and verify the tamper-evident hash; attempt an unauthorized change and show the alert		
18	Access security	Administrative login with MFA; SSO; session timeout; remote wipe of a registered device		
19	Mass billing	Run a batch of 100,000 invoices on the tenderer's environment and show completion in under 30 minutes from system logs		
20	IFMIS export	Generate a SCOA-coded export file and show import into an IFMIS test environment or validator		

PART H — KEY DELIVERABLES AND MILESTONES

*(Single schedule of record is **Part M3**. Payment percentages are consolidated in **Annex PS-1 (Payment Schedule)**, which sums to 100%. The table below gives deliverables and their milestone reference; it does not restate weeks or payment %, which are in M3 and PS-1 respectively.)*

No.	Deliverable	Milestone ref. (M3)
1	Inception Report (including detailed work plan and stakeholder engagement plan)	M1
2	System Requirements Specification (SRS) & Design Documents	M2
3	Data Migration & Cleansing Plan	M3
4	System Development/Configuration & Customization Report	M4
5	Integration & Interoperability Report (Ardhi, MyMakueni, IFMIS, banks, NTSA, IPRS, BRS, eCitizen)	M5
6	Data Migration & Cleansing Completion Report	M6
7	User Acceptance Testing (UAT) Report	M7
8	Training Materials & Training Completion Report	M8
9	System Deployment & Go-Live Report	M9
10	Post-Implementation Support Plan & Warranty	M10
11	Final Completion Report	M11
12	A detailed survey report of County revenue sources and streams	M2
13	Detailed process flows and workflows for all approved County revenue streams	M2

No.	Deliverable	Milestone ref. (M3)
14	Mapping of structured revenue streams and sources	M2
15	A hierarchical revenue reporting dashboard for real-time monitoring of revenue from each source	M4
16	A fully automated backup facility	M4
17	Standard, secure, documented APIs for future integration with other systems	M5
18	Data migration and clean-up of existing revenue data	M6
19	Training of County staff on use, support and management of the system	M8
20	An Annual Maintenance Contract (AMC) and Service Level Agreement (SLA) supporting 24/7 system availability and support	M11
21	A complete documentation package: user manuals, administrator guides, system architecture documents, API specifications and disaster recovery procedures	M11
22	Change Management Plan in the Annex 9 of this tender document form, approved before any go-live	M3
23	Data Migration and Cutover Plan as in Annex 8 of this tender document.	M3, M6
24	Risk register based on Annex 5 of this tender document (R1 to R12), updated quarterly	M1
25	DPIA report for every module and signed data processing agreement	M3
26	Independent penetration test and load test reports, with critical and high findings closed	M7

No.	Deliverable	Milestone ref. (M3)
27	DR drill report showing RPO 15 minutes or less and RTO 2 hours or less	M11
28	Escrow agreement and escrow deposit verification certificate within 60 days of contract signature	M3
29	Commissioning compliance audit tool , with every item rated Compliant, refer to Annex 4 of this tender document	M11

Payment: Per **Annex PS-1**. The retention of 10% of the implementation price is released after ninety (90) days of stable operation following Operational Acceptance.

PART I — HOSTING, BACKUP AND DISASTER RECOVERY

1. The contractor shall host production and disaster recovery environments in Tier III (or equivalent) facilities in Kenya, at geographically separate sites, unless the County elects to host in its own data center.
2. The contractor shall provide separate development, test/training and production environments. Test and training environments shall use anonymized data.
3. The contractor shall give the County super-administrator credentials and read access to all environments, logs and monitoring dashboards.
4. The contractor shall provide automated daily backup with verified restoration, and shall train County ICT staff on backup monitoring and restoration procedures. backups shall be daily full and hourly incremental, encrypted, with quarterly restore tests; the DR site shall be in Kenya with RPO not more than 15 minutes and RTO not more than 2 hours.
5. The contractor shall conduct a full disaster recovery test before go-live and at least annually, and submit a report to the County demonstrating achievement of the RPO and RTO. DR drills shall be held twice a year and automatic failover tested quarterly, a DR test meeting these values is required.

PART J — INTEGRATION REQUIREMENTS

All integrations below are included in the contract price. The County will issue consent letters to third-party system owners. The contractor shall deliver each integration as a live, tested interface with documentation.

No.	System	Purpose	Type (Mandatory/Preferred)
J1	County bankers and payment gateways	Real-time payment notification, validation and verification; statements for reconciliation	Mandatory
J2	Mobile money platforms	Payment initiation, pay bill and till notification, validation and confirmation, with collection instruments registered in the County's name	Mandatory
J3	Card acquirers / payment service providers	Card payments on web, app and POS	Mandatory
J4	IFMIS	Posting of reconciled revenue by revenue code and reporting	Preferred
J5	IPRS	Identity verification	Preferred
J6	KRA iTax	KRA PIN validation	Preferred
J7	BRS	Business registration verification	Preferred
J8	NTSA	Vehicle registration details for parking and enforcement	Preferred
J9	eCitizen	Citizen service and payment interoperability	Preferred
J10	Ardhi System	Data exchange for land-based revenue	Mandatory
J13	County health information systems (eCHIS)	Facility billing and receipt exchange	Preferred

No.	System	Purpose	Type (Mandatory/Preferred)
J14	MyMakueni app	Revenue Reporting and Easy access	Mandatory

PART K — PUBLIC SENSITIZATION

The contractor shall support the County in public sensitization on the system and the available payment channels, including through bulk SMS, market-committee engagement and the MyMakueni App, as part of the training and change-management deliverables (Part L and Module W).

PART L — TRAINING

1. The objective of training is to enable effective and efficient use of the system and to transfer ownership to the County.
2. The contractor shall prepare technical user manuals, user guides, web-based training materials, quick-start manuals and job aids, approved by the County's project team within the timeframes in **Part M3**.
3. The contractor shall develop training methods suited to each target group.
4. Training shall combine instructor-led and train-the-trainer (ToT) sessions with practical sessions, with strong emphasis on tracking transactions from each revenue stream and payment mode from initiation to reporting.
5. Training shall continue as needed throughout the contract to cover upgrades and customizations.
6. Training deliverables shall include presentations and documents describing operational processes and procedures.
7. The contractor shall evaluate and evidence the effectiveness of training (attendance registers, assessments and certification of super users).
8. **The six target groups are:**
   (1)County executives — the Governor, CECMs, Chief Officers, Directors and senior officers;
   (2) project champions, accountants, supervisors and helpdesk staff;
   (3) County and sub-county revenue officers;
   (4) revenue and enforcement officers;
   (5) ICT team and super users;
   (6) citizens and the public (public sensitization).

9. All training costs shall be borne by the contractor, including venue, stationery, meals and other venue costs; reproduction of approved training materials; reimbursable costs incurred by trainees where applicable; and all other costs incidental to training.
10. Training shall cover, as a minimum, the training types in Annex 9 Section 3. Success criteria: not less than 90% of targeted users trained, post-training competency of 80% or more, user satisfaction of 80% or more.

L1 — Training Objectives

1. Appraise County executives — the Governor, CECMs, Chief Officers, Directors and senior officers — on the solution's capabilities.
2. Equip the County's revenue project champions, accountants, supervisors and helpdesk staff.
3. Train County and sub-county officers to operate the platform proficiently.
4. Equip revenue and enforcement officers to operate the platform, set targets and monitor progress.
5. Raise public awareness and educate citizens on using the system and the available payment channels.

L2 — Training Approach, Content and Schedule

1. **Cohort-based:** Training divided into cohorts so that every user in the six target groups is trained, with sessions repeated until all are covered.
2. **Hands-on:** Delivered on the actual configured system, with practical exercises.
3. **Role-based:** Content tailored to each group's roles and responsibilities — executive workshops and demonstrations; in-depth functionality and troubleshooting for champions, supervisors and helpdesk staff; platform operation, data entry, reporting and navigation for County and sub-county officers; and target setting, monitoring, enforcement and performance tracking for revenue and enforcement officers.
4. **Schedule:** Training begins after commissioning of Wave 1, starting with project champions and designated user groups.
5. **Duration and location:** Each cohort session lasts at least one (1) day (longer for the ICT team and super users), at County premises or selected off-site venues agreed at kick-off.
6. **Materials:** Training manuals, FAQs and step-by-step guides for each user group.
7. **Evaluation:** Training evaluations after each cohort, with feedback used to improve content and delivery.

PART M — IMPLEMENTATION METHODOLOGY

M1 — Phased Approach

1. **Inception Phase:** Kick-off, stakeholder engagement, requirements gathering, review of existing systems (Ardhi, MyMakueni and the any other systems).
2. **Design Phase:** System design, architecture, prototyping, integration planning.
3. **Development/Configuration Phase:** Build, customize, integrate with existing systems.
4. **Testing Phase:** Unit, integration, system, UAT, security testing.
5. **Deployment Phase:** Installation, data migration, go-live.
6. **Training & Change Management Phase:** User training, ToT, manuals, change management.
7. **Post-Implementation Phase:** Support, maintenance, warranty.

M2 — Implementation Activities

1. **Kick-off meeting** — Immediately after contract signature, bringing together all stakeholders and project team members to confirm objectives and the plan of action.
2. **Project delivery team** — Defined and mapped, with members drawn from both the contractor and the County.
3. **User requirements gathering** — With users in every revenue-generating department, to align the solution with County operations.
4. **Project scope document** — Prepared by the contractor, reviewed and adopted by the County as the baseline for delivery and change control.
5. **Governance and compliance work stream** — Running in parallel, through one-on-one sessions, workshops and documentation review, to recommend improvements to the County's revenue legal framework, policies and processes.
6. **Infrastructure and software set-up** — Of production, DR and test environments.
7. **Integration preparation:** The County issues consent letters for third-party integrations, and the current Finance Act is loaded to ensure accurate revenue streams and rates.
8. **Configuration and customization** — Of all modules to the County's operational requirements.
9. **Citizen app and channels** — Tailored to Makueni County.
10. **Revenue streams implemented in three waves:**
    a. **Wave 1:** unstructured revenue streams (cess, markets and similar);
    b. **Wave 2:** structured revenue streams (parking, single business permits, health, property rates and similar);
    c. **Wave 3:** remaining revenue streams, integration with third-party systems, GIS and banks.
11. **User training and UAT** — After each wave.
12. **Review and enhancement** — Based on pilot outcomes, user feedback and system performance.
13. **Deployment** — Of Wave 2 and Wave 3 services across all sub-counties.
14. **Full rollout and continuous enhancement.**

M3 — Detailed Schedule (Schedule of Record)

Milestone	Weeks	Key Deliverables
M1	1–2	Inception report; detailed work plan; stakeholder engagement plan
M2	2–4	System Requirements Specification (SRS); design documents; survey report; process flows; mapping of structured revenue streams
M3	4–6	Data migration and cleansing plan
M4	6–12	System development/configuration and customization report; reporting dashboard; automated backup facility
M5	12–14	Integration and interoperability report (Ardhi, MyMakueni, IFMIS, banks, NTSA, IPRS, BRS, eCitizen); documented APIs
M6	14–16	Data migration and cleansing completion report
M7	16–18	User Acceptance Testing (UAT) report
M8	18–20	Training completion report; certified super users
M9	20–22	Pilot report; Wave 1 live
M10	22–24	All modules live County-wide
M11	24–26	Operational acceptance certificate; all documentation delivered; AMC/SLA signed
M12	16–20	Training and change management (continuous)

M4 — Quality Assurance and Testing

The contractor shall submit a test plan that verifies that every service and module operates as intended, finds defects before production, and builds confidence in the quality of the system.

Responsibilities: Testing by the contractor's quality assurance (QA) testers and County UAT testers; problem reporting and tracking by QA; defect resolution by developers; test reporting by QA.

Features to be tested shall include, at a minimum: all channels (citizen app on Android and iOS, chat-based channels, USSD, self-service web portal); bulk SMS notification; pay bill and other payment channels; enforcement app; billing, invoicing, receipting, payments and reconciliation; reporting and dashboards; third-party integrations (hospital systems, IFMIS, banks, GIS, national systems); revenue stream workflows; customer journeys for internal and external users; security services; the end-to-end health permit workflow; property and development approval workflows; audit trail and maker-checker controls; role-based access control for each user type; hosting infrastructure and security components, including backup and restoration; data migration; and offline capture and synchronization.

Test Level	**Performed By**	**Approved/confirmed by**	**Entry Criteria**	**Exit Criteria**
Unit test	Vendor	County ICT team	Planning complete; technical design approved	Testing complete; defects fixed and closed
Integration test	Vendor	County ICT team	Unit testing complete	Integration verified
System test	Vendor	County ICT team	Integration testing complete	System meets requirements
UAT	Vendor	County ICT team	System testing complete	User acceptance signed off
Security test	Independent tester	County ICT team	System testing complete	No critical/high vulnerabilities
Performance test	Vendor	County ICT team	Functionally stable build;	1,200 TPS or more at peak; key

Test Level	Performed By	Approved/confirmed by	Entry Criteria	Exit Criteria
			agreed load profile	transactions within 2 s; no degradation
Penetration test	Independent tester	County ICT team	System test complete	No open critical or high findings; report accepted by County ICT

PART N — SERVICE LEVEL AGREEMENT

N1 — Key Performance Indicators

1. **System uptime:** At least 99.5% each calendar month, excluding scheduled maintenance.
2. **Service availability:** 24 hours a day, 7 days a week. Scheduled maintenance shall be notified to the County at least 48 hours in advance and carried out during off-peak hours.
3. **Data accuracy:** At least 99.5% for all fees, billing, transaction and other operational data.
4. **System enhancements:** Change requests raised, approved and executed in line with the severity matrix in N2.
5. **Response time:** Average application response within the performance standards in **TR-1.7**.
6. All KPIs shall meet or exceed the minimum Key Performance Indicators, including ≥1,200 transactions per second at peak, zero tolerance for unresolved critical security incidents, and a user satisfaction index ≥80%.
7. Additional KPIs automatic posting of all transactions to customer and transaction ledgers without manual intervention; compliance with all preferred integrations (IFMIS, SCOA, BRS, IPRS and other designated platforms); and generation of all mandatory statutory, financial, audit and management reports in real time or near real time.

N2 — Severity Levels

Severity	Description	Response	Restoration/Resolution
1 — Outage	System or payment unavailable; data breach	Within 30 minutes	Within 4 hours
2 — Critical	High risk of system downtime; major module or sub-county unavailable	Within 1 hour	Within 8 hours
3 — Urgent	End-user impact; function degraded with workaround	Within 2 hours	Within 24 hours
4 — Important	Potential performance impact if not addressed	Within 4 hours	Within 48 hours
5 — Monitor	Issue addressed but potentially impactful in future	Within one business day	As agreed with the County
6 — Informational	Enquiry for information	Within 48 hours	Not applicable

N3 — Service Response Targets

Service	Description	Target	Measurement
Hosting instances	Virtual machine / server uptime	99.9%	Resource availability; mean time to restore (MTTR)
Hosting network	Connectivity within the hosting infrastructure	99.9%	Resource availability; MTTR
Storage and compute	Storage, RAM and CPU resources	99.9%	Resource utilization; response time; MTTR

Service	Description	Target	Measurement
Mobile money	Transaction success	99.5%	Availability; response time; MTTR
Bulk SMS	SMS delivery	99.5%	Availability; response time; MTTR
Application	Reliability of the application, including API integrations with internal and third-party systems	99.5%	Availability; response time; MTTR
Mandatory integrations	Success rate for mandatory integrations	99%	Integration logs
Devices	POS devices, mobile data connectivity and device management fully functional	99.5%	Functional devices; MTTR

N4 — Support Services

1. **On-site support** at the County: 7:00 a.m. to 8:00 p.m., Monday to Sunday, for the first **one year** after go-live, and thereafter as agreed.
2. **Telephone support:** 24/7/365.
3. **Email and helpdesk portal support:** 24/7/365.
4. Support covers corrective maintenance, security patches, version upgrades, annual Finance Act updates and minor enhancements throughout the year.

N5 — Escalation

The contractor shall provide a named escalation matrix of at least five levels: on-site support engineer; customer support desk; ICT / technical team; section manager; and head of department or executive responsible for the contract. Escalation shall follow these timeframes:

Target Resolution	1st Escalation (Team Manager)	2nd Escalation (Section Manager)	3rd Escalation (Head of Department)	Final Escalation
30 minutes	30 minutes elapsed	1 hour elapsed	2 hours elapsed	Within 3 hours
1 hour	1 hour elapsed	2 hours elapsed	4 hours elapsed	Within 5 hours
2 hours	1 hour elapsed	2 hours elapsed	4 hours elapsed	Within 9 hours
12 hours	1 hour elapsed	4 hours elapsed	8 hours elapsed	Within 14 hours
24 hours	2 hours elapsed	6 hours elapsed	12 hours elapsed	Within 14 hours

N6 — Confidentiality, Compliance and Reporting

1. **Confidentiality:** The contractor shall keep all County data and information confidential and protect it against unauthorized access, disclosure, alteration or deletion.
2. **Compliance:** The service shall comply with all applicable laws, regulations and standards, including the Data Protection Act, 2019.
3. **Reporting:** The contractor shall submit monthly service reports covering availability, incidents by severity, SLA performance, changes and security events.
4. **Performance reviews:** The parties shall hold quarterly performance reviews of the service, maintenance and support.

N7 — Service Credits and Amendments

1. **Service credits:** Failure to meet the uptime target or resolution times in a quarter attracts service credits of **5% of that quarter's support fee per breach, capped at 30% per quarter**, without prejudice to the County's other remedies for quantifiable revenue loss caused by serious downtime.
2. **Amendments:** The SLA may be amended only by written agreement of both parties.

3. The SLA shall incorporate the service credit regime, including penalties for uptime below 99.5%, missed critical resolution times, missed DR RPO/RTO, and failure to remediate critical vulnerabilities.

PART O — OWNERSHIP, INTELLECTUAL PROPERTY AND EXIT

1. All data captured, generated or processed by the system is and remains the sole property of the County. The contractor processes it only on the County's documented instructions and shall not sell, share or otherwise use it.
2. The County receives a perpetual, irrevocable, non-transferable license to use the system for all County purposes, without per-transaction or percentage-of-revenue charges.
3. All County-specific configuration and customization developed under the contract belongs to the County.
4. The core application source code shall be deposited with an independent escrow agent within **60 days** of contract signature and updated with each major release, for release to the County on the contractor's insolvency, cessation of support or material breach.
5. All bank accounts, pay bill and till numbers, merchant accounts and short codes used for collection shall be registered in the name of the County Government of Makueni.
6. On expiry or termination, the contractor shall provide a full export of County data with schemas, **three (3) months** of transition support to the County or a successor, and certified secure deletion of County data from its systems.
7. Ownership and IP arrangements shall comply with the requirement for County ownership of the CRMS platform, data sovereignty and source code escrow.
8. Documentation and handover: Deliver a system design dossier, data model and dictionary, API documentation, configuration run books, standard operating procedures, administrator and user manuals, test reports, training materials and an escrow package containing source code and build scripts.
9. On termination or expiry, the contractor shall also deliver the latest system backup in an open format and allow migration of data within 2 months.

PART P — COUNTY OBLIGATIONS

The County will provide a Project Steering Committee and a project manager; timely access to staff, premises, data and existing system documentation; the current Finance Act and tariff schedules; consent letters for third-party integrations; collection accounts and instruments in its name; and review and sign-off of deliverables within **ten (10) working days** of submission.

PART Q — ACCEPTANCE

Each milestone will be accepted in writing by the County's Inspection and Acceptance Committee. Operational Acceptance requires all modules live County-wide, all integrations live, zero open Severity 1 or 2 defects, a successful DR test, and delivery of all documentation and training.

PART R — ELIGIBILITY & QUALIFICATION OF BIDDERS

Bidders must demonstrate:

1. At least 5 years' experience in implementing revenue management systems.
2. At least 3 successful similar implementations in county governments.
3. Experience with Kenyan county revenue systems and integration with IFMIS, eCitizen and mobile money.
4. Certified professionals (e.g. PMP, ITIL, ISO 27001, CISA).
5. Financial capacity (audited accounts for the last 3 years).
6. Local presence or partnership with local firms.
7. Tax compliance certificate.
8. No conflict of interest or debarment.
9. Demonstrated experience with GIS integration and mobile money integration.
10. Demonstrated familiarity with and capacity to comply with the CRA Standards and Guidelines on the Automation of County Own Source Revenue, 2026 (Annex 1 of this tender document).
11. Not less than three (3) county government CRMS deployments live in production, with verifiable references, and a local technical team (CRA Annex 3). A "similar implementation" means a revenue management system live in production for at least 12 months, covering at least five revenue streams, with integrated electronic payments and automated reconciliation.

PART S — METHODOLOGY

The assignment shall follow the phased approach detailed in **Part M**.

PART T — PROJECT GOVERNANCE

1. **Steering Committee:** County Executive Committee Member – Finance; CECM ICT; Chief Officer – Treasury; Chief Officer – ICT; Director-ICT and Director of Revenue.
2. **Project Implementation Team:** Project Manager (Director -ICT), ICT team, Revenue team, Lands team, Legal team.
3. **Vendor Team:** Project Manager, Developers, Testers, Trainers, Support.
4. **Reporting:** Weekly progress reports; monthly steering committee reports.
5. **Governance structures** shall include a Joint Technical Committee and a County CRMS Committee.
6. Composition as required by the CRA Guidelines: (a) County CRMS Committee chaired by the CECM Finance, with representatives of ICT, Internal Audit, Legal, Revenue and Planning, to oversee deployment and approve customizations within the Guidelines (para 26); (b) Joint Technical Committee chaired by the County Treasury, with representatives of every department that generates own source revenue, to oversee upgrades and monitor vendor SLA performance (para 14); (c) Project Implementation Unit coordinating infrastructure, training, change management and day-to-day liaison (para 27); and (d) a County ICT help desk (para 16). The Steering Committee in item 1 lacks Internal Audit, Legal and Planning and should be constituted as the County CRMS Committee.

PART U — EVALUATION CRITERIA

Evaluation shall be in four stages:

Stage	Content	Pass/Fail or Weight
Stage 1 — Preliminary	Mandatory documents (company registration, tax compliance, NDA, compliance declarations, audited accounts, references)	Pass/Fail

Stage	Content	Pass/Fail or Weight
Stage 2 — Technical	Response to every specification in Part F. All Mandatory items must be "Yes" (a "No" on any Mandatory item renders the tender non-responsive). Preferred and Optional items are scored.	70% of technical score
Stage 3 — Practical Demonstration	Compliance (C/NC) against every item in Part G. All items must be "C".	30% of technical score
Stage 4 — Financial	Itemized financial proposal; evaluated on total cost of ownership over 5 years (implementation + AMC).	100% of financial score

PART V — DATA PROTECTION & DATA GOVERNANCE

1. Sign a Non-Disclosure Agreement (NDA).
2. Comply with the Kenya Data Protection Act, 2019 and county data policies.
3. Ensure data ownership remains with the County.
4. Return or destroy all County data upon contract termination.
5. Comply with the County's data sovereignty requirements.
6. Comply with the data governance requirements, including data classification, retention (**≥7 years for financial/transactional/audit data**), archiving and disposal

PART W — WARRANTY & MAINTENANCE

1. **Warranty:** 24 months from go-live.
2. **Support:** 24/7 helpdesk, SLA-based response and resolution. (See **Part N**.)
3. Maintenance: Annual maintenance contract after which the ICT team should be capacity build to take over sub sequent maintenance.
4. Upgrades: Free minor upgrades (patches and the annual Finance Act update); major upgrades and version changes shall be done under negotiation.
5. **Performance Guarantee:** Vendor shall guarantee system performance as per the technical requirements.

PART X — TERMS & CONDITIONS

1. The County reserves the right to accept or reject any bid.
2. The bidder shall bear all costs of bidding.
3. The contract shall be governed by the laws of Kenya.
4. Disputes shall be resolved through arbitration in Nairobi.
5. The County may terminate for non-performance.
6. Source code: The core application source code shall be placed in escrow, confirm whether full source code delivery at go-live is also required.
7. The contract shall comply with the CRA Standards and Guidelines on the Automation of County Own Source Revenue, 2026, including the compliance enforcement provisions (90-day remediation period and escalation to IBEC).

PART Y — HARDWARE

The contractor shall supply, deliver, configure and deploy the handheld POS devices below. No other hardware is to be supplied under this contract. Tenderers shall state the make and model offered and attach manufacturer datasheets. Devices shall carry a manufacturer's warranty of at least [two (2)] years, with replacement within [five (5)] working days.

Below are the detailed minimum technical specifications for the pos devices

MINIMUM TECHNICAL SPECIFICATIONS FOR POS DEVICES		
Notes: • Only BRANDED and established equipment should be included in quotations • Prices to be VAT inclusive • Attach a catalogue of each item quoted • At least two Years Warranty		
Device Description		**Qty**
Device Type	Rugged handheld Android POS; IP54 minimum; 1.2 m drop-tested; battery-powered	
OS	Android 10 or later; vendor security patching	
Display	4.5″+ colour capacitive touch; 480×854 minimum; 400 nits minimum	
CPU / Memory	Quad-core 1.5 GHz+; 2 GB RAM+; 16 GB storage+; microSD	
Connectivity	4G/LTE with 3G/2G fallback; dual-band Wi-Fi; Bluetooth 4.2+	
SIM / Security	Dual SIM or SIM+eSIM; secure element/hardware keystore	
Payments	Cash, mobile money (M-Pesa/Airtel Money), EMV card, NFC/contactless; PCI DSS flows	
Scanning / Printing	Integrated 1D/2D barcode/QR scanner; 58 mm thermal printer	
GPS	Integrated GNSS; ±5 m accuracy minimum	

Camera	Rear 5 MP+ with flash	230
Authentication	PIN and/or fingerprint; auto-logout/lockout	
Receipting	E-receipt via SMS/email/print with QR/barcode	
Battery / Power	Removable battery, 8 h+ typical use; spare battery; USB-C/dock charging; 0–45 °C	
Management / Security	MDM support; remote lock/wipe; AES-256; TLS 1.2+; secure boot	
Performance	Transaction response ≤3 s for 95% of transactions	
Receipt / Reversal	Secure reprint; reversal/refund with maker-checker	
Language / Standards	English and Kiswahili; CBK, ICT Authority, Data Protection Act, PCI DSS where applicable	
Warranty	12-month minimum; spare parts/device pool	

PART Z — ANNEXES

Annex PS-1 — Payment Schedule (single source)

Milestone	Deliverable	% of contract price
M1	Inception Report; work plan; stakeholder engagement plan	5%
M2	SRS & Design Documents; survey report; process flows; mapping	10%
M3	Data Migration & Cleansing Plan	5%
M4	Development/Configuration Report; reporting dashboard; backup facility	10%
M5	Integration & Interoperability Report; documented APIs	10%
M6	Data Migration Completion Report	10%
M7	UAT Report	10%
M8	Training Completion Report; certified super users	10%
M9	Deployment & Go-Live Report	15%
M10	Post-Implementation Support Plan & Warranty	5%
M11	Final Completion Report; AMC/SLA signed; full documentation	5%
Retention	Released 90 days after Operational Acceptance (within M11)	**5%**
Total		**100%**

ANNEX 1: CRA GUIDELINES COMPLIANCE MATRIX

Tenderers shall respond to every row. Annexes 1 and 2 of the CRA Guidelines are binding (paras 10(2), 11(2)) and the full Gazette text of each requirement, including its test procedure and evidence, applies; the summaries below are for reference only. A "No" or blank against any M item renders the tender non-responsive at Stage 2. S items are scored at Stage 3. TR.25 (marked S*) is treated as Mandatory under para 33(1)(g). Annex 3 of the Guidelines lists FR.30, FR.31, FR.35 and FR.42 among optional items, but Annex 1 codes them M; Annex 1 governs.

Ref	Area	Requirement (summary; the Gazette text governs)	Priority	Yes / No	Evidence (page / section)
FR.1	Registry	Central register of taxpayers, ratepayers and businesses linked to National ID, KRA PIN and BRS number; many-to-many links to streams, parcels and accounts; not less than 1,000,000 records	M		
FR.2	Registry	One entity linked to multiple revenue streams with a consolidated account	M		
FR.3	Registry	Store and retrieve supporting documents against each profile	M		
FR.4	Registry	Detect, flag and merge duplicate accounts with audit trail	M		
FR.5	Registry	Full history of applications, inspections, bills, payments and licenses	M		
FR.6	Registry	Customer or ratepayer ledgers with running balances and aging, plus system journals	M		
FR.7	Registry	Transaction ledger per revenue stream with SCOA coding	M		
FR.8	Registry	Multi-criteria search (name, ID, KRA PIN, location, status)	M		
FR.9	Registry	Bulk import and export (CSV or Excel) with validation	M		
FR.10	Tariffs	Configure streams per County Finance Act or Tariff and Pricing Policy	M		
FR.11	Tariffs	Add new revenue streams, tariffs, SCOA codes and parameters without vendor intervention	M		

Ref	Area	Requirement (summary; the Gazette text governs)	Priority	Yes / No	Evidence (page / section)
FR.12	Tariffs	Rule engine for fees, penalties and interest with version history, effective and expiry dates, reason codes and audit trail	M		
FR.13	Tariffs	Bulk upload of tariffs from the Finance Bill, including zone-based rates	M		
FR.14	Tariffs	Map all revenue items to SCOA and block billing of unmapped items	M		
FR.15	Tariffs	Register of county-owned assets tied to revenue streams	M		
FR.16	Tariffs	Geo-reference revenue sources; shape file and GeoJSON import; spatial queries and analytics	S		
FR.17	Tariffs	Billing frequencies per stream (daily, monthly, annual, seasonal)	M		
FR.18	Tariffs	Automatic penalties and interest; waivers and exemptions with thresholds, reason codes, attachments and maker-checker	M		
FR.19	Tariffs	Categorize streams by ward, market or category and set targets	S		
FR.20	Billing and payments	End-to-end workflow from application to inspection, billing, payment and license issue	M		
FR.21	Billing and payments	Customizable checklists per service enforced before billing	M		
FR.22	Billing and payments	Automatic renewal flagging with SMS, email or USSD reminders	M		
FR.23	Billing and payments	Mobile money, EFT, cards, USSD and agency banking; offline queueing and synchronization; reversals and chargebacks	M		
FR.24	Billing and payments	Instant receipts and confirmation to payer	M		

Ref	Area	Requirement (summary; the Gazette text governs)	Priority	Yes / No	Evidence (page / section)
FR.25	Billing and payments	T+1 matching of collections to bank and wallet statements; exception worklists; not more than 1% unresolved after T+3	M		
FR.26	Billing and payments	Refunds and reversals through approval workflow with audit trail	M		
FR.27	Billing and payments	Partial payments, overpayments via credit wallets, split payments	S		
FR.28	Billing and payments	PDF and e-bill invoices with unique payment references; mass billing and re-billing with lineage; 100,000 invoices in under 30 minutes	M		
FR.29	Debt and enforcement	Aging reports 30, 60, 90, 180+ days by stream and ward	M		
FR.30	Debt and enforcement	Instalment payment plans with compliance monitoring	M		
FR.31	Debt and enforcement	Automated reminders and dunning workflow with escalation	M		
FR.32	Debt and enforcement	Case management with field assignment, GPS and time-stamps; not less than 90% of cases geo-stamped	S		
FR.33	Debt and enforcement	Restriction of repeat offenders with policy-based exemptions	S		
FR.34	Users and agents	Register revenue staff and assign roles per County organogram	M		
FR.35	Users and agents	Assign collectors to sources or targets and monitor performance	M		
FR.36	Users and agents	Register and manage external collection agents with roles and targets	S		
FR.37	Users and agents	Real-time staff and agent performance metrics	S		

Ref	Area	Requirement (summary; the Gazette text governs)	Priority	Yes / No	Evidence (page / section)
FR.38	Self-service	Taxpayer portal for accounts, bills, payments, receipts, applications and tickets; OTP login; WCAG compliance	M		
FR.39	Self-service	USSD access for key services	S		
FR.40	Self-service	Officer and taxpayer apps, offline-first, with conflict handling on sync	S		
FR.41	Self-service	Accessibility standards; English and Kiswahili	S		
FR.42	Configuration and close	Update rates, cycles and penalties without code changes; wards, streams, holidays as parameters	M		
FR.43	Configuration and close	Daily ledger posting, reconciliation and reporting with system lock; authorized re-opens only	M		
FR.44	Configuration and close	Period lock, balance roll-forward, debt aging and monthly reports	M		
FR.45	Configuration and close	Fiscal year close, carry-forward of arrears and balances, archiving of year parameters and tariffs	M		
FR.46	Configuration and close	Not less than 30 standard reports, ad hoc report builder, export CSV, XLSX or JSON	M		
FR.47	Configuration and close	SCOA-coded exports importable to IFMIS	M		
FR.48	Configuration and close	Maps and spatial reports for mapped revenue sources	S		
FR.49	Configuration and close	Logs of sensitive actions and configuration changes; tamper-evident hash; role-based retrieval; 7-year retention	M		
FR.50	Configuration and close	REST or JSON APIs, OAuth 2.0 or OpenID, webhooks, throttling, versioning; API uptime 99%; p95 latency 2 s or less	M		

Ref	Area	Requirement (summary; the Gazette text governs)	Priority	Yes / No	Evidence (page / section)
TR.1	Architecture	Modular, service-oriented or micro services; stateless APIs; message queue; independent upgrades; scale to 200% of 5-year volumes; auto-scaling thresholds	M		
TR.2	Hosting	On-premises, Government-approved data center, compliant local cloud or hybrid; security and TCO assessment of chosen deployment	M		
TR.3	Hosting	For centralized deployments: logical segregation, per-County keys, per-tenant admin roles	M		
TR.4	Hosting	Uptime not less than 99.5% per quarter; failover and load balancing	M		
TR.5	Hosting	Separate development, test, training and production environments with controlled promotion	M		
TR.6	Infrastructure	Enterprise-grade redundant infrastructure; NVMe or SAN database storage; TLS termination at load balancer	M		
TR.7	Infrastructure	On-premises: UPS, generator, physical access control, CCTV, environmental monitoring	M		
TR.8	Infrastructure	Encrypted daily full and hourly incremental backups; quarterly restore tests	M		
TR.9	Software stack	LTS operating systems; ACID relational database; read replicas for analytics	M		
TR.10	Software stack	CI/CD pipeline; SAST and DAST; artefact repository; infrastructure-as-code	M		
TR.11	Software stack	Centralized logging (ELK or equivalent), metrics, APM traces, configured alert thresholds	M		
TR.12	Software stack	Compliance with Government Enterprise Architecture, Government	M		

Ref	Area	Requirement (summary; the Gazette text governs)	Priority	Yes / No	Evidence (page / section)
		Interoperability Framework and OWASP ASVS			
TR.13	Integration	Two-way IFMIS integration by API or file; SCOA mapping enforced on all transactions	M		
TR.14	Integration	IPRS, BRS, NTSA, HMIS and GIS via REST or JSON with OAuth 2.0 or OpenID; mutual TLS for sensitive transactions	M		
TR.15	Integration	Bank host-to-host, ISO 20022 and ISO 8583 where applicable, mobile money APIs; automated reconciliation	M		
TR.16	Integration	Documented, version-controlled APIs (e.g. /v1); rate limits; API uptime 99%; p95 latency 2 s or less	M		
TR.17	Integration	Sandbox credentials, Swagger or OpenAPI, sample payloads, error catalogue, integration test cases for all mandatory integrations	M		
TR.18	Security	RBAC and ABAC; least privilege; segregation of duties; maker-checker	M		
TR.19	Security	MFA for privileged and administrative accounts; SSO via SAML and OpenID Connect	M		
TR.20	Security	TLS 1.2 or higher in transit; AES-256 at rest; periodic key rotation	M		
TR.21	Security	Quarterly vulnerability scans; annual penetration test; critical fixed within 30 days, high within 60 days	M		
TR.22	Security	DPIA for every module; consent and notice mechanisms; privacy by design	M		
TR.23	Security	Authorized device registry; session timeouts; concurrent login limits; remote wipe	M		
TR.24	Security	Anti-tamper protection; logging and alerting on suspicious activity and configuration changes	M		
TR.25	Performance	Not less than 1,200 transactions per second across all channels at peak	S*		

Ref	Area	Requirement (summary; the Gazette text governs)	Priority	Yes / No	Evidence (page / section)
TR.26	Performance	Billing, payment posting and receipting within 2 seconds under normal load	M		
TR.27	Performance	Offline billing, receipting and enforcement with secure store-and-forward sync	M		
TR.28	Performance	Offline GIS layers on enforcement devices with sync	S		
TR.29	E-enforcement	Mobile or POS devices for notices, tickets and penalties with GPS and time-stamp	M		
TR.30	E-enforcement	Photo, video and document evidence linked to case records	M		
TR.31	E-enforcement	Configurable enforcement workflows, assignment, escalation and SLA tracking	M		
TR.32	E-enforcement	Export or API to judicial systems or recovery agencies	S		
TR.33	DR and BCP	In-country DR site; RPO 15 minutes or less; RTO 2 hours or less	M		
TR.34	DR and BCP	Bi-annual DR drills with documented failover and fallback against success criteria	M		
TR.35	DR and BCP	BCP with manual fallback procedures, communication tree and notification templates	M		
TR.36	DR and BCP	Automated daily full and hourly incremental backups; quarterly restore tests	M		
TR.37	DR and BCP	Automatic failover for critical services; quarterly failover tests	M		
TR.38	Reporting	Not less than 30 standard reports and ad hoc builder; export PDF, CSV, XLSX, JSON	M		

Ref	Area	Requirement (summary; the Gazette text governs)	Priority	Yes / No	Evidence (page / section)
TR.39	Reporting	Configurable real-time dashboards whose figures match underlying reports	M		
TR.40	Reporting	Revenue and arrears forecasting from historical data	S		
TR.41	Configuration	Rates, penalties, waivers, workflows and forms changed by parameter with full audit	M		
TR.42	Configuration	English and Kiswahili interfaces; multiple currency formats	S		
TR.43	Configuration	New streams with tariffs, SCOA codes, workflows and report templates without vendor intervention	M		
TR.44	Data management	Validation rules and mandatory fields	M		
TR.45	Data management	Migration tools: mapping, cleansing, trial loads, reconciliation	M		
TR.46	Data management	Archive per retention schedule; purge only after multi-level authorization with audit log	M		
TR.47	Documentation	Design dossier, data model and dictionary, API docs, runbooks, SOPs, manuals, test reports, training materials, escrow package with source code and build scripts	M		

CRA GUIDELINES ANNEXES

The Annexes below are reproduced from the Commission on Revenue Allocation Standards and Guidelines on the Automation of County Own Source Revenue, 2026 (Gazette Notice No. 11488, Kenya Gazette Vol. CXXVIII No. 127 of 27th July 2026). They form part of this TOR and are referred to in it by their CRA numbers. Where any text below differs from the Gazette, the Gazette prevails. Annex 7 (Stakeholder Consultation Record) records the Commission's own consultations in preparing the Guidelines and is not reproduced. Annex 12 serves as the full glossary referred to in Part B as Annex G-1.

ANNEX 1: MINIMUM FUNCTIONAL REQUIREMENTS

Checklist for the CRMS

Section 1: Purpose

This Annex specifies the minimum functional requirements for the CRMS to ensure that deployments are compliant, interoperable and capable of supporting the full revenue lifecycle, from source registration through to reporting and audit.

Section 2: Scope

These requirements apply to all CRMS deployments, whether County-specific or part of a centralized national platform, and shall be observed in the procurement, development, implementation, commissioning and operation of every CRMS.

Section 3: Priority Codes

In the table that follows, the priority code "M" denotes a mandatory requirement and the priority code "S" denotes a "should-have" requirement that is desirable for optimal performance.

Section 4: Functional Requirements

Ref.	Functional Area	Requirement	Priority	Test Procedure	Evidence
FR.1	Registry & Identity Management	Maintain a central register of taxpayers, ratepayers and businesses linked to National ID, KRA PIN and BRS number; support many-to-many relationships between entities and revenue streams, parcels and accounts; scale to not less than one million records.	M	Create, update and search sample records; merge duplicates; execute API query.	Screenshots; search logs; API specification.

Ref.	Functional Area	Requirement	Priority	Test Procedure	Evidence
FR.2	Registry & Identity Management	Link a single entity to multiple revenue streams including land rates, single business permits, parking, market fees and similar revenue streams.	M	Link not less than three streams to one taxpayer and generate a consolidated account.	Consolidated account report.
FR.3	Registry & Identity Management	Store and retrieve supporting documents such as identity cards, licenses and plans against each profile.	M	Upload and retrieve documents for sample record.	Document logs.
FR.4	Registry & Identity Management	Detect and flag duplicate accounts for review and merge with audit trail.	M	Create duplicate entries; verify that the system flags and merges them.	Duplicate detection report.
FR.5	Registry & Identity Management	Maintain a full history of all interactions, including applications, inspections, bills, payments and licenses.	M	Open sample record and review history.	History log export.
FR.6	Registry & Identity Management	Maintain individual customer or ratepayer ledgers showing all transactions, running balances and aging, in addition to system journals.	M	View sample ledger and verify accuracy against transactions.	Ledger report.
FR.7	Registry & Identity Management	Maintain full transaction ledgers for each revenue stream with SCOA coding.	M	Generate stream ledger report and verify SCOA mapping.	Transaction ledger export.
FR.8	Registry & Identity Management	Search registry by multiple criteria including name, identity number, KRA PIN, location and status.	M	Run multi-criteria search and verify results.	Search results screenshot.
FR.9	Registry & Identity Management	Bulk import and export of registry data in CSV or Excel format, with validation.	M	Import test file and review validation logs.	Import and export logs.
FR.10	Revenue Source & Tariff Management	Configure revenue streams in accordance with the County Finance Act, the Tariff and Pricing Policy or applicable schedules.	M	Load tariff schedule and check application.	Tariff configuration logs.
FR.11	Revenue Source & Tariff Management	Add new revenue streams without vendor intervention, including setting of tariffs, SCOA codes and parameters.	M	Create a new stream and generate a bill.	Stream creation log.
FR.12	Revenue Source & Tariff Management	Rule-based engine to compute fees, penalties and interest, with version history showing effective and expiry dates, reason codes and an audit trail of changes.	M	Configure not less than ten tariffs; simulate bulk changes; show version history.	Configuration guide; change log.
FR.13	Revenue Source & Tariff Management	Bulk upload of tariffs from the Finance Bill or Tariff Policy, including zone-based rates.	M	Import bulk tariff file and verify in system.	Import log; tariff list.
FR.14	Revenue Source & Tariff Management	Map all revenue items to the Standard Chart of Accounts codes and enforce mapping before billing.	M	Attempt unmapped billing and verify that the system blocks the action.	SCOA mapping report.
FR.15	Revenue Source & Tariff Management	Maintain a register of county-owned assets tied to revenue streams, including markets, buildings and equipment.	M	Add asset and link to a revenue stream.	Asset register export.
FR.16	Revenue Source & Tariff Management	Geo-reference revenue sources for spatial planning and enforcement, with support for shape file and GeoJSON import, layer-based queries and spatial analytics.	S	Map sample sources and view on GIS layer.	GIS map screenshot; integration document.

Ref.	Functional Area	Requirement	Priority	Test Procedure	Evidence
FR.17	Revenue Source & Tariff Management	Configure billing frequencies per stream, including daily, monthly, annual and seasonal.	M	Change billing cycle and generate bills.	Billing configuration logs.
FR.18	Revenue Source & Tariff Management	Automatic application of penalties and interest; approval of waivers and exemptions with thresholds, reason codes and document attachments; maker-checker controls enforced.	M	Process penalty and waiver and check audit trail.	Waiver workflow log.
FR.19	Revenue Source & Tariff Management	Categorize streams by ward, market or category, and set revenue targets.	S	Assign targets and run performance report.	Target allocation file.
FR.20	Applications, Billing, Payments, Receipting	End-to-end workflow from application to inspection, billing, payment and issuance of license or permit.	M	Apply for service and follow through to license issue.	Workflow screenshots.
FR.21	Applications, Billing, Payments, Receipting	Customizable checklists for each service, enforced before billing.	M	Configure checklist and submit application.	Checklist configuration export.
FR.22	Applications, Billing, Payments, Receipting	Automatic flagging of accounts due for renewal, with reminders sent by SMS, email or USSD.	M	Simulate renewal period and send reminder.	Reminder logs.
FR.23	Applications, Billing, Payments, Receipting	Acceptance of payments through mobile money, electronic funds transfer, cards, USSD and agency banking, with support for offline queueing and synchronization, and for reversals and chargebacks.	M	Process payments through each channel and simulate offline synchronization.	Payment logs.
FR.24	Applications, Billing, Payments, Receipting	Instant issuance of receipts and confirmation to the payer.	M	Complete payment and check confirmation.	Receipt copy; SMS or email log.
FR.25	Applications, Billing, Payments, Receipting	Match daily collections with bank and wallet statements on a T+1 basis, with exception worklists and closure SLAs requiring not more than 1 per cent unresolved after T+3.	M	Import bank file, auto-match and review exceptions.	Reconciliation report.
FR.26	Applications, Billing, Payments, Receipting	Processing of refunds and reversals through an approval workflow with full audit trail.	M	Initiate reversal and check logs.	Reversal log.
FR.27	Applications, Billing, Payments, Receipting	Support for partial payments, overpayments through credit wallets, and split payments.	S	Test each case and verify balances.	Payment allocation report.
FR.28	Applications, Billing, Payments, Receipting	Generation of invoices in PDF and e-bill formats with unique payment references; mass billing and re-billing with traceability; batch capability of not less than 100,000 invoices in under thirty minutes.	M	Run batch test and verify lineage.	Batch report; runbook.
FR.29	Debt Management & Enforcement	Generation of aging reports for 30, 60, 90 and 180+ days, by stream and by ward.	M	Produce report for sample data.	Aging report.
FR.30	Debt Management & Enforcement	Creation of instalment payment plans and monitoring of compliance.	M	Set plan and test missed-payment alert.	Payment plan report.

Ref.	Functional Area	Requirement	Priority	Test Procedure	Evidence
FR.31	Debt Management & Enforcement	Automated reminders by SMS, email or application, with a dunning workflow including escalation.	M	Trigger reminders and check logs.	Reminder logs.
FR.32	Debt Management & Enforcement	Case management with field assignment, GPS and time-stamped actions, outcome tracking, and not less than 90 per cent of cases geo-stamped.	S	Issue e-ticket and inspect GPS logs.	Enforcement logs; field application demonstration.
FR.33	Debt Management & Enforcement	Restriction of repeat offenders, with policy-based exemptions permitted.	S	Add to and remove from list and verify block.	Blacklist log.
FR.34	User, Collector & Agent Management	Registration of revenue staff and assignment of roles per the County organogram.	M	Add staff and assign role.	Staff registry export.
FR.35	User, Collector & Agent Management	Assignment of collectors to sources or targets and monitoring of performance.	M	Allocate targets and review report.	Target assignment log.
FR.36	User, Collector & Agent Management	Registration and management of external collection agents, with assignment of roles and targets.	S	Add agent, set target and check report.	Agent assignment log.
FR.37	User, Collector & Agent Management	Real-time staff and agent performance metrics.	S	Display live dashboard.	Dashboard screenshot.
FR.38	Self-Service & Access Channels	Permit taxpayers to access accounts, bills, payments, receipts, applications and support tickets, with one-time-password login and compliance with Web Content Accessibility Guidelines.	M	Log in, complete payment and verify accessibility.	Portal transaction log; test scripts.
FR.39	Self-Service & Access Channels	Enable low-bandwidth access by USSD for key services.	S	Dial USSD and complete task.	USSD session log.
FR.40	Self-Service & Access Channels	Provide an officer application (for assessment, inspection and enforcement) and a taxpayer application (for payment, viewing and renewal), with an offline-first design and conflict handling on synchronization.	S	Demonstrate applications and test offline synchronization.	Application demonstration; device policy.
FR.41	Self-Service & Access Channels	Compliance with accessibility standards and multilingual support in English and Kiswahili.	S	Switch language and view accessibility tools.	Accessibility settings log.
FR.42	Configuration, Period Close & Reporting	Update of rates, cycles and penalties without code changes; support for multi-language and geographic parameters such as wards, streams and holidays.	M	Change rate and apply in bill.	Configuration change log.
FR.43	Configuration, Period Close & Reporting	Daily ledger posting, reconciliation and reporting with system lock, with authorized re-opens permitted.	M	Run end-of-day and attempt back-dated entry.	End-of-day report; lock log.
FR.44	Configuration, Period Close & Reporting	Period lock, roll forward of balances, aging of debt and generation of monthly reports.	M	Run end-of-month and check ledgers and reports.	End-of-month reports.
FR.45	Configuration, Period Close & Reporting	Closure of fiscal year, carry forward of arrears and balances, and archiving of year-specific parameters and tariffs.	M	Run end-of-year and verify opening balances.	End-of-year close report.

Ref.	Functional Area	Requirement	Priority	Test Procedure	Evidence
FR.46	Configuration, Period Close & Reporting	Generation of statutory, management and ad hoc reports (not less than 30 standard reports), an ad hoc builder and export in CSV, XLSX or JSON formats.	M	Run sample reports and export.	Report catalogue; samples.
FR.47	Configuration, Period Close & Reporting	Production of SCOA-coded exports compatible with IFMIS.	M	Export sample and import to IFMIS test environment.	Export file; IFMIS log.
FR.48	Configuration, Period Close & Reporting	Generation of maps and spatial reports for mapped revenue sources.	S	Run GIS query.	GIS map screenshot.
FR.49	Configuration, Period Close & Reporting	Production of logs of all sensitive actions and configuration changes; tamper-evident hash; role-based retrieval; retention for not less than seven years.	M	Generate audit report and verify hash.	Audit log export.
FR.50	Configuration, Period Close & Reporting	Provision of REST or JSON APIs using OAuth 2.0 or OpenID, webhooks, API throttling and versioning; API uptime of not less than 99 per cent and 95th percentile latency of not more than two seconds.	M	Review API documentation and run test calls.	API documentation; monitoring screenshots.

ANNEX 2: MINIMUM TECHNICAL REQUIREMENTS

Checklist for the CRMS

Section 1: Purpose

This Annex sets out the minimum technical specifications and compliance requirements for the CRMS, so as to ensure security, scalability, interoperability and operational performance across County Governments.

Section 2: Scope

This Annex applies to all CRMS implementations, whether developed in-house, procured commercially or provided as part of a centralized national platform, and shall be observed during procurement, implementation, commissioning and operation.

Section 3: Priority Codes

In the table that follows, the priority code "M" denotes a mandatory requirement and the priority code "S" denotes a "should-have" requirement that is desirable for optimal performance.

Section 4: Technical Requirements

Ref.	Technical Area	Requirement	Priority	Test Procedure	Evidence
TR.1	System Architecture & Hosting	Adopt a modular, service-oriented or micro services architecture; include stateless APIs and a message queue for asynchronous jobs; support independent upgrades; scale to not less than 200 per cent of projected volumes over five years; define auto-scaling thresholds.	M	Review architecture diagrams and simulate load test.	Architecture document; load test results.
TR.2	System Architecture & Hosting	Support deployment on-premises, in a Government-approved data center, in a compliant local cloud or in a hybrid configuration; conduct a security and total cost of ownership assessment for the chosen deployment.	M	Inspect hosting setup and review assessment.	Hosting certificate; TCO and security report.
TR.3	System Architecture & Hosting	For centralized deployments, provide logical data segregation, per-County encryption keys and per-tenant administrative roles.	M	Inspect multi-tenancy configuration and run segregation tests.	Multi-tenancy configuration report.
TR.4	System Architecture & Hosting	Achieve uptime of not less than 99.5 per cent per quarter, with failover mechanisms and load balancing.	M	Review monitoring logs and conduct failover test.	Uptime report; failover log.
TR.5	System Architecture & Hosting	Provide separate development, test, training and production environments, with controlled promotion of configurations between them.	M	Inspect environment structure.	Environment configuration report.
TR.6	Infrastructure	Use enterprise-grade redundant infrastructure; NVMe or SAN storage for the database; TLS termination at the load balancer.	M	Inspect hardware specifications and test TLS.	Infrastructure inventory; TLS configuration log.
TR.7	Infrastructure	Where on-premises hosting is used, ensure uninterruptible power supply, generator backup, controlled physical access, closed-circuit television and environmental monitoring.	M	Inspect facilities and review monitoring.	Facility inspection report.
TR.8	Infrastructure	Automated, encrypted backups, comprising daily full backups and hourly incremental backups, with quarterly restore tests.	M	Review backup configuration and perform restore.	Backup log; restore report.
TR.9	Software Stack & Development Practices	Use supported long-term-support operating systems and a relational database with ACID compliance; implement read replicas for analytics workloads.	M	Review operating system and database versions and verify replica configuration.	OS and database version list; replica status report.
TR.10	Software Stack & Development Practices	Implement a continuous integration and continuous deployment pipeline; perform static and dynamic application security testing; maintain an artefact repository; adopt infrastructure-as-code.	M	Review DevSecOps configuration and inspect automated test reports.	CI/CD configuration documents; SAST and DAST reports.

Ref.	Technical Area	Requirement	Priority	Test Procedure	Evidence
TR.11	Software Stack & Development Practices	Maintain centralized logging using ELK or an equivalent, performance metrics and application performance monitoring traces; define and configure alert thresholds.	M	Inspect logging setup and trigger alerts to validate thresholds.	Logging configuration; sample alert records.
TR.12	Software Stack & Development Practices	Ensure compliance with the Government Enterprise Architecture, the Government Interoperability Framework and the OWASP Application Security Verification Standard.	M	Review compliance checklist and test results.	Compliance certification or signed checklist.
TR.13	Integration & Interoperability	Provide secure APIs or files for two-way integration with IFMIS, and enforce SCOA mapping on all transactions.	M	Generate SCOA-coded export and perform IFMIS import in test environment.	SCOA export file; IFMIS import log; mapping validation.
TR.14	Integration & Interoperability	Integrate with IPRS, BRS, NTSA, HMIS and GIS platforms using REST or JSON APIs with OAuth 2.0 or OpenID, and apply mutual TLS for sensitive transactions.	M	Conduct API test calls and inspect secure connection configurations.	API test logs; API documentation; connection configurations.
TR.15	Integration & Interoperability	Support integration with bank host-to-host services, ISO 20022 and ISO 8583 messaging where applicable, and mobile money APIs; ensure automated reconciliation.	M	Process test transactions across all financial rails and validate reconciliation outputs.	Payment logs; reconciliation reports; integration certificates.
TR.16	Integration & Interoperability	Provide documented, version-controlled APIs; enforce versioning (for example /v1); apply rate limits; achieve API uptime of not less than 99 per cent and 95th percentile latency of not more than two seconds.	M	Inspect API documentation and run uptime and latency tests.	API monitoring reports; API portal screenshots.
TR.17	Integration & Interoperability	Provide sandbox credentials, Swagger or OpenAPI documents, sample payloads, an error catalogue and integration test cases for all mandatory integrations.	M	Review artefact package and run sample integration tests.	Artefact inventory; integration test logs.
TR.18	Security & Privacy	Implement role-based access control and attribute-based access control to enforce least privilege, segregation of duties and maker-checker controls.	M	Review role and attribute matrix; simulate access; verify maker-checker.	Role and attribute configuration; access logs.
TR.19	Security & Privacy	Require multi-factor authentication for privileged and administrative accounts, and support single sign-on using SAML and OpenID Connect.	M	Attempt administrative login to verify MFA and test single sign-on.	MFA screenshots; SSO setup logs.
TR.20	Security & Privacy	Encrypt data in transit using TLS 1.2 or higher and at rest using AES-256, and rotate keys at regular intervals.	M	Inspect encryption configuration and review key rotation logs.	Security configuration; key rotation schedule.
TR.21	Security & Privacy	Conduct quarterly vulnerability scans and annual penetration tests; remediate critical vulnerabilities within thirty days and high-severity vulnerabilities within sixty days.	M	Review scan results and penetration test reports and confirm remediation timelines.	Scan reports; penetration test report; remediation logs.

Ref.	Technical Area	Requirement	Priority	Test Procedure	Evidence
TR.22	Security & Privacy	Conduct a Data Protection Impact Assessment for every module; implement consent and notice mechanisms; embed privacy by design.	M	Inspect DPIA documents and test consent capture in workflows.	DPIA reports; consent logs.
TR.23	Security & Privacy	Maintain a registry of authorized devices; enforce session timeouts and concurrent login limits; provide remote wipe.	M	Simulate lost device and perform remote wipe; review session logs.	Device registry; remote wipe report.
TR.24	Security & Privacy	Enable anti-tamper protections; log and alert on suspicious activities and configuration changes.	M	Attempt unauthorized alteration and review tamper logs.	Tamper protection configuration; tamper log export.
TR.25	Performance & Resilience	Process not less than 1,200 transactions per second across all channels during peak periods.	S	Perform load testing with simulated peak volumes.	Load test results; benchmark report.
TR.26	Performance & Resilience	Complete key transactions (billing, payment posting, receipting) within two seconds under normal load.	M	Time transactions during testing and verify thresholds.	Transaction timing logs.
TR.27	Performance & Resilience	Provide offline operation for core functions (billing, receipting, enforcement) with secure store-and-forward synchronization.	M	Simulate offline activity and synchronization; confirm data integrity.	Offline transaction logs; synchronization report.
TR.28	Performance & Resilience	Make GIS layers accessible offline on enforcement devices, and synchronize updates when online.	S	Load and navigate offline GIS map and synchronize updates.	Offline GIS logs; synchronization confirmation.
TR.29	E-Enforcement & Field Operations	Integrate with mobile or point-of-sale devices for issuing enforcement notices, tickets and penalties with GPS and time-stamping.	M	Issue test e-ticket via device and verify GPS and time stamp.	Enforcement case log; GPS data report.
TR.30	E-Enforcement & Field Operations	Capture photographic, video and documentary evidence linked to case records.	M	Upload test evidence to a case file and confirm linkage.	Case file with media.
TR.31	E-Enforcement & Field Operations	Provide configurable workflows for enforcement actions, assignment, escalation and SLA tracking.	M	Execute sample workflow and verify SLA alerts.	Workflow configuration; SLA log.
TR.32	E-Enforcement & Field Operations	Enable export or API integration with external judicial systems for escalation to court or recovery agencies.	S	Export sample enforcement case and verify data receipt.	Export log; receiving system confirmation.
TR.33	Disaster Recovery & Business Continuity	Maintain an in-country disaster recovery site with a recovery point objective of not more than fifteen minutes and a recovery time objective of not more than two hours.	M	Review DR architecture and conduct failover test.	DR documentation; failover logs.
TR.34	Disaster Recovery & Business Continuity	Conduct bi-annual disaster recovery drills, and document failover and fallback against defined success criteria.	M	Execute DR drill and review results.	DR drill report; recovery metrics.
TR.35	Disaster Recovery & Business Continuity	Maintain a Business Continuity Plan that includes manual fallback procedures, a communication tree and stakeholder notification templates.	M	Review BCP and simulate communication process.	Approved BCP; simulation report.
TR.36	Disaster Recovery & Business Continuity	Automated daily full backups and hourly incremental backups, with quarterly restore tests.	M	Inspect backup logs and perform test restoration.	Backup logs; restore verification.

Ref.	Technical Area	Requirement	Priority	Test Procedure	Evidence
TR.37	Disaster Recovery & Business Continuity	Automatic failover for critical services, with quarterly failover tests.	M	Simulate outage, trigger failover and measure downtime.	Failover test results; monitoring logs.
TR.38	Reporting & Analytics	Reporting engine with not less than thirty standard reports and an ad hoc builder; export to PDF, CSV, XLSX and JSON.	M	Generate sample reports and test exports.	Report catalogue; files.
TR.39	Reporting & Analytics	Configurable real-time dashboards showing revenue performance, targets, arrears and trends; data must match underlying reports.	M	Compare dashboard metrics to reports.	Dashboard screenshots; comparison logs.
TR.40	Reporting & Analytics	Forecasting tools to project revenue trends and arrears recovery on the basis of historical data.	S	Run forecast analysis on test data and verify model accuracy.	Forecast report; analytics configuration.
TR.41	Configuration & Extensibility	Permit changes to rates, penalties, waivers, workflows and forms via parameters, with full audit of configuration changes.	M	Update parameters and verify change logs.	Configuration change log; settings.
TR.42	Configuration & Extensibility	Support English and Kiswahili interfaces and multiple currency formats.	S	Switch language and test currency display.	Language and currency settings logs.
TR.43	Configuration & Extensibility	Add new revenue streams with tariffs, SCOA codes, workflows and reporting templates without vendor intervention.	M	Add new stream in test and verify.	Stream creation log; billing test.
TR.44	Data Management	Implement validation rules to prevent incomplete or invalid data, and enforce mandatory fields.	M	Attempt to save invalid data and review errors.	Validation error log; configuration.
TR.45	Data Management	Provide migration tools, including mapping, cleansing, trial loads and reconciliation.	M	Perform trial migration and reconcile data.	Migration plan; reconciliation report.
TR.46	Data Management	Archive inactive records in accordance with the retention schedule, and purge only after multi-level authorization with audit logging.	M	Archive and purge samples in test.	Archive and purge logs; authorizations.
TR.47	Documentation & Handover	Deliver a system design dossier, data model and dictionary, API documentation, configuration runbooks, standard operating procedures, administrator and user manuals, test reports, training materials and an escrow package containing source code and build scripts.	M	Review documentation set for completeness and compliance.	Documentation inventory; escrow confirmation.

ANNEX 3: PROCUREMENT AND COMPLIANCE EVALUATION MATRIX

Section 1: Purpose

This Annex provides a standard evaluation matrix for the uniform, transparent and objective assessment of CRMS proposals during procurement, commissioning and compliance review.

Section 2: Scope

This Annex applies to Procurement Evaluation Committees, Commissioning Teams, and Oversight and Audit Teams.

Section 3: Evaluation Matrix

Evaluation Area	Criteria	Linked FR/TR	Weight (%)	Scoring Method
Preliminary Evaluation	Submission of mandatory documents, including bid security, tax compliance certificate, signed forms and eligibility requirements.	Not applicable	Pass / Fail	All documents must be provided for a bid to proceed.
Functional Requirements Compliance (Mandatory)	Meets all mandatory functional requirement items in Annex 1.	FR.1 to FR.50	25	Pass or fail in respect of mandatory items; optional items scored proportionally between 0 and 1.
Functional Requirements Compliance (Optional)	Meets the “should-have” functional requirement items.	FR.16, FR.19, FR.27, FR.30 to FR.31, FR.33, FR.35, FR.39 to FR.40, FR.42, FR.48	5	Weighted score by number of optional items implemented.
Technical Requirements Compliance (Mandatory)	Meets all mandatory technical requirement items in Annex 2.	TR.1 to TR.47 (Mandatory)	25	Pass or fail in respect of mandatory items; points awarded for exceeding minimum specifications.
Technical Requirements Compliance (Optional)	Meets the “should-have” technical requirement items.	TR.25, TR.28, TR.32, TR.40, TR.42	5	Weighted score by number of optional items implemented.
Integration & Interoperability	Successful integration with IFMIS, SCOA, IPRS, BRS, GIS, HMIS, NTSA and payment channels.	FR.14, FR.47, TR.13 to TR.17	5	Live or sandbox test evidence demonstrating error-free transactions.
Security & Compliance	Meets security, privacy and data protection requirements and passes vulnerability and penetration testing.	TR.18 to TR.24	5	Review of audit logs, security reports and test results.
Performance & Resilience	Meets throughput, uptime, offline capability, and disaster recovery and business continuity benchmarks.	TR.1, TR.4, TR.25 to TR.28, TR.33 to TR.37	5	Load tests, disaster recovery drill reports and offline simulation.

Evaluation Area	Criteria	Linked FR/TR	Weight (%)	Scoring Method
Implementation Approach & Plan	Methodology, migration plan, training, change management and post-go-live support.	TR.45, TR.47, FR.42 to FR.45	10	Review of project plan, timelines and resource allocation.
Vendor Experience & Capacity	CRMS deployments in not less than three counties, with verifiable references and a local technical team.	Not applicable	5	Reference checks; review of team curricula vitae.
Total Cost of Ownership	Five-year total cost of ownership, including licenses, hosting, maintenance, upgrades and training.	Not applicable	5	Evaluation of detailed cost breakdown.
Risk & Exit Strategy	Data portability, source code escrow, exit and migration plan, and SLA commitments.	TR.47, FR.11, FR.49	5	Review of SLA, escrow agreement and exit plan.

ANNEX 4: COMPLIANCE AUDIT TOOL FOR THE CRMS

Section 1: Purpose

This Annex provides a structured compliance checklist for commissioning, post-implementation review, annual audit and spot-check exercises.

Section 2: Scope

This Annex applies to all County Governments and National implementing agencies operating a CRMS, and is intended for use by Internal Audit, the Commission, the National Treasury, the Auditor-General and quality-assurance consultants.

Section 3: Compliance Audit Checklist

In the "Rating" column, an auditor shall record one of the following ratings: "Compliant", "Partially Compliant" or "Non-Compliant".

Ref.	Audit Area	Compliance Standard	Linked FR/TR	Test Procedure	Evidence	Rating	Remediation
A4.1	Registry & Identity Management	Central registry linked to National ID, KRA PIN and BRS; many-to-many relationships supported; capacity of not less than one million records.	FR.1	Inspect registry; search and link records; run API query.	Screenshots; API logs.		
A4.2	Registry & Identity Management	Customer and transaction ledgers with SCOA coding in place.	FR.6, FR.7	View ledgers and verify SCOA mapping.	Ledger reports; SCOA export.		

Ref.	Audit Area	Compliance Standard	Linked FR/TR	Test Procedure	Evidence	Rating	Remediation
A4.3	Revenue Source & Tariff Management	All streams configured per the Finance Act or Tariff Policy, with version history maintained.	FR.10, FR.12	Compare system tariffs to legal schedule; review change logs.	Tariff configuration logs.		
A4.4	Revenue Source & Tariff Management	SCOA mapping enforced for all billable items.	FR.14, TR.13	Attempt unmapped billing and confirm system block.	SCOA mapping report.		
A4.5	Applications, Billing & Payments	Batch billing capacity of not less than 100,000 invoices in under thirty minutes met; re-billing maintains lineage.	FR.28	Run batch and review logs.	Batch run logs.		
A4.6	Applications, Billing & Payments	All mandatory payment channels active; offline queue and synchronization functional; reversals tracked.	FR.23, TR.27	Process payments and simulate offline mode.	Payment logs.		
A4.7	Applications, Billing & Payments	Receipts issued instantly and confirmation sent to payer.	FR.24	Complete payment and verify receipt and SMS.	Receipt copy; SMS log.		
A4.8	Applications, Billing & Payments	Daily T+1 reconciliation; not more than 1 per cent unresolved after T+3.	FR.25	Inspect reconciliation reports and check closure rates.	Reconciliation logs.		
A4.9	Debt Management & Enforcement	Aging reports generated and dunning workflow active.	FR.29, FR.31	Run arrears report and check reminders.	Aging report; reminder log.		
A4.10	Debt Management & Enforcement	GPS and time-stamped enforcement actions logged; not less than 90 per cent geo-stamped.	FR.32, TR.29	Issue e-ticket and verify GPS logs.	Enforcement logs.		
A4.11	Debt Management & Enforcement	Evidence capture linked to case files.	TR.30	Upload sample evidence to case and confirm linkage.	Case file with media.		
A4.12	Security & Privacy	Roles and attributes correctly configured; maker-checker in place.	TR.18	Review role matrix and simulate access.	Role configuration report.		
A4.13	Security & Privacy	Multi-factor authentication enforced for privileged accounts; TLS 1.2 or higher and AES-256 encryption active.	TR.19, TR.20	Test MFA and inspect encryption setup.	MFA logs; encryption configuration.		
A4.14	Security & Privacy	Quarterly scans and annual penetration test conducted; critical vulnerabilities remediated within thirty days.	TR.21	Review reports and confirm remediation dates.	Security reports.		
A4.15	Security & Privacy	DPIAs completed and consent capture mechanisms functional.	TR.22	Inspect DPIA and test consent prompts.	DPIA documents; consent logs.		

Ref.	Audit Area	Compliance Standard	Linked FR/TR	Test Procedure	Evidence	Rating	Remediation
A4.16	Performance & Resilience	Not less than 1,200 transactions per second at peak and response time of not more than two seconds.	TR.25, TR.26	Run performance test and measure response.	Load test reports.		
A4.17	Performance & Resilience	Offline billing, receipting and enforcement operational, with synchronization working.	TR.27	Simulate offline operations and synchronize data.	Offline logs.		
A4.18	Disaster Recovery & BCP	DR site operational with recovery point objective of not more than fifteen minutes, recovery time objective of not more than two hours, and two drills per year.	TR.33, TR.34	Inspect DR site and review drill reports.	DR drill report.		
A4.19	Disaster Recovery & BCP	Daily full and hourly incremental backups, with quarterly restores successful.	TR.36	Check backup jobs and perform restore.	Backup and restore logs.		
A4.20	Disaster Recovery & BCP	Automatic failover tested quarterly and uptime SLA met.	TR.37	Simulate outage and verify failover.	Failover logs.		
A4.21	Reporting & Analytics	Not less than thirty standard reports, an ad hoc builder, and all export formats functional.	FR.46, TR.38	Generate reports and test exports.	Report catalogue.		
A4.22	Reporting & Analytics	Real-time dashboards match report data.	TR.39	Compare dashboard against reports.	Dashboard screenshot; comparison log.		
A4.23	Configuration & Extensibility	Rates, penalties, waivers and workflows updated via parameters, with changes logged.	TR.41	Update configuration and review change logs.	Configuration logs.		
A4.24	Configuration & Extensibility	New streams added without vendor intervention, fully functional.	TR.43	Create new stream and test billing and reporting.	Stream creation log.		
A4.25	Documentation & Handover	All required documentation and escrow package delivered.	TR.47	Inspect documentation inventory.	Documentation list; escrow confirmation.		

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ANNEX 5: RISK MANAGEMENT FRAMEWORK FOR THE CRMS

Section 1: Purpose

This Annex establishes a standard approach for identifying, assessing, mitigating and monitoring risks during the lifecycle of a CRMS.

Section 2: Scope

This Annex applies to County CRMS operations, to centralized national deployments and to third-party service providers.

Section 3: Risk Register and Management Matrix

ID	Category	Description	Impact	Likelihood	Severity	Owner	Mitigation	Contingency	Key Risk Indicator
R1	Technical: Infrastructure	System downtime due to hardware failure or hosting outage.	Revenue loss and public dissatisfaction.	Medium	High	ICT Unit and Vendor	Redundant infrastructure; high-availability design; monitoring.	Activate DR site; failover within RTO of two hours.	Uptime percentage; mean time to recover.
R2	Technical: Application	Bugs or defects disrupt billing, payments and reconciliation.	Delayed collections and inaccurate data.	Medium	High	ICT Unit and Vendor	QA and UAT before updates; DevSecOps pipeline with rollback.	Revert to last stable version; patch within SLA.	Defect density; time to patch.
R3	Security	Data breach or unauthorized access to taxpayer data.	Legal penalties and reputational damage.	Medium	High	ICT and Security Officer	RBAC and ABAC; MFA; encryption; security audits.	Activate incident response; notify regulators and affected parties.	Number of security incidents; failed login attempts.
R4	Integration	Failure of integration with IFMIS, SCOA, payment channels or registries.	Delayed reporting and revenue posting errors.	Medium	High	ICT, Finance and Vendor	Integration testing; API monitoring; SLAs.	Manual upload; escalate to partner.	API success rate; reconciliation variance.
R5	Data Management	Loss or corruption of financial records.	Loss of accountability and breach of compliance.	Low	High	ICT and Vendor	Encrypted backups; quarterly restore tests.	Restore from backup; conduct forensic analysis.	Backup success rate; restore success rate.

ID	Category	Description	Impact	Likelihood	Severity	Owner	Mitigation	Contingency	Key Risk Indicator
R6	Operational: Collection	Fraudulent collection or diversion by staff or agents.	Revenue leakage and legal action.	Medium	High	Revenue Department and Internal Audit	Cashless collections; reconciliation controls; monitoring.	Suspend accounts and initiate audit.	Collector performance variance.
R7	Operational: Enforcement	Delay or failure in enforcement due to technical or logistical issues.	Drop in compliance and revenue shortfall.	Medium	Medium	Enforcement and ICT	E-enforcement devices; SLA monitoring.	Escalate cases; maintain manual logs.	Enforcement completion rate.
R8	Change Management	User resistance to system or process changes.	Low adoption and parallel manual processes.	Medium	Medium	HR and Change Lead	Training; sensitization; support channels.	Coaching; leadership escalation.	Adoption rate; help desk tickets.
R9	Regulatory	Non-compliance with the Data Protection, Public Finance Management or procurement laws.	Fines, legal sanctions and halted operations.	Low	High	Legal and Compliance	Compliance reviews; legal vetting.	Suspend risky processes; remediate.	Number of audit findings.
R10	Business Continuity	Disaster, such as fire, flood or cyber-attack, disrupts operations.	Extended downtime and loss of revenue.	Low	High	ICT and DR Lead	DR site; BCP drills; environmental controls.	Activate BCP; failover to DR.	BCP drill success; recovery time.
R11	Vendor Management	Vendor insolvency, dispute or poor performance.	Delays and loss of support.	Medium	Medium	Procurement, ICT and Legal	SLAs; escrow for source code; alternate vendor readiness.	Activate escrow; engage alternate vendor.	SLA breach rate.
R12	GIS & Field Operations	Inaccurate GIS mapping or field data capture failures.	Poor targeting and incomplete asset register.	Medium	Medium	GIS and ICT	GPS audits; offline GIS maps; training.	Manual validation; re-map.	Percentage of verified GIS assets.

ANNEX 6: SAMPLE SERVICE LEVEL AGREEMENT FOR THE CRMS

Section 1: Purpose

This Annex sets out a template defining the performance standards, responsibilities and remedies applicable to the provision, operation and support of a CRMS by a Vendor to a Client.

Section 2: Scope of Services

The services governed by this template Service Level Agreement ("SLA") shall include hosting and infrastructure (where applicable), application maintenance, integration maintenance, security management, disaster recovery and business continuity, help desk and incident management, and training and the updating of documentation.

Section 3: Performance Metrics

Service Area	Metric	Target	Linked FR/TR
System Availability	Uptime per quarter	Not less than 99.5%	TR.4
Incident Response	Acknowledgement of Priority 1 (Critical) incidents	Not more than 15 minutes	TR.18, TR.19
Incident Resolution	Restoration of service (Critical)	Workaround within 2 hours; full fix within 8 hours	TR.18, TR.19
Reconciliation Accuracy	Daily reconciliation completion	100% at T+1; not more than 1% unresolved after T+3	FR.25
Integration Availability	Success rate for mandatory integrations	Not less than 99%	TR.13 to TR.17
Security Compliance	Vulnerability remediation	Critical within 30 days; high within 60 days	TR.21
Backup and Restore	Quarterly restore test success rate	100%	TR.36
DR Drill Success	Meeting of RPO and RTO targets	RPO not more than 15 minutes; RTO not more than 2 hours	TR.33, TR.34
Training Delivery	Completion of agreed training plan	100% attendance and evaluation	TR.47
Documentation Updates	Update window following any change	Within 5 working days	TR.47

Section 4: Priority Levels and Resolution Targets

Priority	Definition	Response Time	Resolution Target
P1: Critical	Complete outage; core revenue functions unavailable.	Within 15 minutes	Workaround within 2 hours; full fix within 8 hours
P2: High	Major function degraded; workaround available.	Within 30 minutes	Full fix within 24 hours

Priority	Definition	Response Time	Resolution Target
P3: Medium	Minor function affected; low business impact.	Within 2 hours	Full fix within 5 days
P4: Low	Cosmetic or user interface issue; no business impact.	Within 4 hours	Fix in next planned release

Section 5: Reporting and Review

The Vendor shall submit monthly service performance reports to the Client, and the parties shall hold quarterly review meetings to assess SLA performance and identify opportunities for continuous improvement.

Section 6: Penalties and Service Credits

Breach	Penalty / Service Credit
Uptime falling below 99.5%	5% of the monthly service fee for every 0.5% of shortfall.
Missed Critical issue resolution time	10% of the monthly service fee per incident.
Missed DR recovery point or recovery time objectives	15% of the monthly service fee per failed test.
Failure to remediate a critical vulnerability within the prescribed time	10% of the monthly service fee per breach.

Cumulative penalties in any one quarter shall not exceed 25 per cent of the quarterly service fee. Persistent non-compliance may trigger termination of the contract.

Section 7: Escalation Path

(a) Service Desk or Help Desk Officer;

(b) Vendor Support Manager;

(c) Vendor Chief Technology Officer or senior management; and

(d) Client steering committee.

Section 8: Change Management

All system changes shall be approved by the Client and tested in a staging environment before deployment to production.

Section 9: Termination and Exit Management

Upon termination of the SLA, the Vendor shall provide to the Client the latest system backup in an open format, updated documentation, transfer of source code and configurations as provided under the contract, and a knowledge transfer to the Client or to a replacement vendor.

ANNEX 8: DATA MIGRATION AND CUTOVER PLAN

Section 1: Purpose

This Annex provides a structured framework to ensure the safe, accurate and efficient migration of data from legacy revenue management systems or manual records into the CRMS, with minimal disruption to service delivery and no loss of data integrity.

Section 2: Scope

This Annex applies to all County Governments and National implementing agencies deploying a CRMS, including migration from legacy systems such as LAIFOMS and earlier revenue management systems, the transition from manual registers, and the consolidation of multiple systems into a single CRMS.

Section 3: Migration Principles

(a) accuracy, requiring that migrated data match verified source data exactly;

(b) completeness, requiring that all relevant historical and current records be migrated;

(c) integrity, requiring that relationships between records, such as those between customers, ledgers and transactions, be preserved;

(d) compliance, requiring that data comply with SCOA coding, the Data Protection Act, 2019, and statutory retention rules;

(e) auditability, requiring that every migration step be logged and documented; and

(f) minimal downtime, requiring that cutover be planned to avoid prolonged service interruption.

Section 4: Migration Phases and Activities

Phase	Activity	Description	Linked FR/TR	Deliverable
Pre-Migration Assessment	Data Inventory	Identify all existing data sources and repositories.	TR.45	Data inventory report.
Pre-Migration Assessment	Data Mapping	Map each data element from source to CRMS target field, ensuring SCOA mapping.	FR.14; TR.13	Data mapping matrix.
Pre-Migration Assessment	Data Cleansing	Remove duplicates, correct inconsistencies and complete missing data.	FR.4; TR.44	Cleansed dataset.
Pre-Migration Assessment	Migration Tool Setup	Configure vendor-supplied migration utilities and scripts.	TR.45	Tool setup log.
Pre-Migration Assessment	Migration Plan Approval	Secure sign-off for migration scope, schedule and responsibilities.	TR.47	Approved migration plan.
Trial Migration	Trial Load	Perform migration in a test or staging environment.	TR.45	Trial migration logs.
Trial Migration	Reconciliation	Compare trial migrated data to source records and verify ledgers and balances.	FR.6; FR.7	Reconciliation report.
Trial Migration	User Verification	Departmental review and sign-off of trial data.	FR.1 to FR.3	User sign-off forms.
Cutover Preparation	Freeze Changes	Halt non-critical changes to source data during the migration window.	TR.5	Change freeze notice.
Cutover Preparation	Final Backup	Take a full backup of source systems before migration.	TR.36	Backup confirmation log.
Cutover Preparation	Communication	Notify stakeholders of the cutover date, downtime and contingency plan.	TR.35	Communication plan.
Final Migration & Go-Live	Final Load	Load the final dataset into the production CRMS.	TR.45	Final migration log.
Final Migration & Go-Live	Validation	Run validation checks and sample reports post-load.	FR.43 to FR.47	Validation checklist.
Final Migration & Go-Live	Cutover Execution	Switch operations to the CRMS and decommission legacy entry points.	TR.35	Cutover report.
Post-Go-Live Support	Hypercare Period	Provide dedicated vendor and on-site support for a defined period.	TR.47	Support logs.
Post-Go-Live Support	Parallel Reconciliation	Compare CRMS data against legacy data for a defined period.	FR.25	Reconciliation reports.
Post-Go-Live Support	Final Sign-off	Formal acceptance of migrated data.	TR.47	Acceptance certificate.

Section 5: Roles and Responsibilities

Role	Responsibility
County ICT Unit	Coordinate migration; validate technical tools; manage backups and environments.
County Finance and Revenue Department	Validate SCOA mappings; verify ledger and transaction accuracy.
Vendor Migration Team	Provide migration tools; execute migration and cutover; resolve issues.
Data Protection Officer	Ensure compliance with privacy laws during migration.
Project Manager	Oversee migration timeline, scope and resources.
Audit and Quality Assurance Team	Independently verify migration quality and compliance.
Commission on Revenue Allocation	Offer technical capacity assistance.

Section 6: Key Risks and Mitigation

Risk	Potential Impact	Mitigation
Data loss during migration	Missing or incomplete records.	Multiple backups; trial runs; reconciliation checks.
Incomplete SCOA mapping	Reporting and IFMIS errors.	Pre-validation of mappings; enforcement of SCOA codes.
Extended downtime	Service disruption.	Plan migration window; define fallback plan.
User resistance	Continued use of old processes.	Early training; user participation in migration.
Privacy breach	Legal penalties.	Secure handling; role-based access; encryption.

ANNEX 9: CHANGE MANAGEMENT AND TRAINING PLAN

Section 1: Purpose

This Annex sets out the structured approach for managing organizational change, stakeholder adoption and capacity building during the transition to a CRMS.

Section 2: Change Management Phases

Phase	Key Activities	Deliverables	Linked FR/TR
Readiness Assessment	Assess current processes, systems, skills and stakeholder perceptions.	Readiness report; stakeholder mapping.	TR.47
Communication Planning	Develop strategy, key messages, channels and timeline.	Communication plan; briefing materials.	TR.35
Stakeholder Engagement	Hold meetings with user groups, management and oversight bodies.	Engagement logs; feedback matrix.	FR.1; FR.38

Phase	Key Activities	Deliverables	Linked FR/TR
Impact Analysis	Identify process and role changes and the key performance indicators affected.	Change impact report.	TR.47
Resistance Management	Identify potential resistance and plan mitigation.	Resistance plan.	TR.47
Change Champion Network	Appoint departmental champions to support adoption.	Champion roster; role descriptions.	TR.47

Section 3: Training Plan Structure

Training Type	Target Audience	Objectives	Responsibility	Delivery Method	Duration	Linked FR/TR
System Overview	Executive leadership and managers.	Understand system purpose, benefits and governance.	County ICT and Vendor	Workshop or briefing	1day	FR.1 to FR.3; TR.47
Functional User Training	Revenue and finance officers and enforcement staff.	Operate modules for billing, receipting, reconciliation and enforcement.	County ICT and Vendor	Hands-on workshops	5 days	FR.20 to FR.32
Technical and Administrative Training	ICT and system administrators.	Manage users, roles, configurations, integrations, backups and security.	County ICT and Vendor	Laboratory sessions	5 days	TR.9 to TR.24; TR.36
Integration Training	ICT and finance integration staff.	Manage IFMIS, SCOA, payment and registry integrations.	County ICT and Vendor	Practical configuration sessions	2 days	FR.14; TR.13 to TR.17
Security and Compliance Training	All users.	Understand data security, privacy laws and role-based controls.	County ICT and Vendor	E-learning or interactive	1 day	TR.18 to TR.22
Reporting and Analytics Training	Management, M&E and finance teams.	Generate statutory and management reports, dashboards and analytics.	County ICT and Vendor	Workshop	1 day	FR.43 to FR.48; TR.38 to TR.40
DR and BCP Training	ICT and operations staff.	Conduct DR drills, backup restores and continuity processes.	County ICT and Vendor	Simulation	1 day	TR.33 to TR.37
Change Champion Coaching	Change champions.	Support peer adoption and escalate feedback.	County ICT and Vendor	Peer coaching	Ongoing	TR.47

Section 4: Communication Guidelines

(a) pre-go-live: weekly updates, frequently-asked-question documents and early demonstrations;

(b) go-live: daily updates, escalation contacts and public notices; and

(c) post-go-live: success stories, usage statistics and surveys.

Section 5: Adoption Monitoring and Success Criteria

(a) user login frequency and transaction volumes;

(b) help desk ticket trends and resolution times;

(c) compliance with new processes, and decommissioning of manual systems within three months of go-live;

(d) not less than 90 per cent of targeted users trained, and competency scores of not less than 80 per cent after training; and

(e) stakeholder satisfaction of not less than 80 per cent in user surveys, with adoption metrics meeting projections.

ANNEX 10: STANDARD REPORTS CATALOGUE

Section 1: Purpose

This Annex defines the minimum set of reports that the CRMS shall produce in order to meet statutory, operational, management, analytical and transparency requirements.

Section 2: Report Categories

Category	Description	Frequency	Linked FR/TR
Statutory and Financial Reports	Legally required reports, SCOA-coded and IFMIS-compatible.	Monthly, quarterly or annually	FR.44; TR.13
Management and Operational Reports	Reports that support internal decision-making.	Daily, weekly or monthly	FR.43; TR.38
Debt and Enforcement Reports	Reports tracking arrears, payment plans and enforcement actions.	Weekly or monthly	FR.29 to FR.33; TR.29 to TR.31
GIS and Asset Reports	Spatial insights relating to revenue assets.	Monthly or quarterly	FR.16; FR.48; TR.28
Analytical and Forecasting Reports	Predictive insights for planning.	Quarterly or annually	TR.39; TR.40

Section 3: Minimum Standard Reports

Ref.	Report Name	Description and Purpose	Frequency	Format	Linked FR/TR
SR.1	County Revenue Summary	Consolidated revenue by stream, ward and SCOA code; IFMIS-ready.	Monthly	PDF; XLSX; SCOA CSV	FR.44; TR.13

Ref.	Report Name	Description and Purpose	Frequency	Format	Linked FR/TR
SR.2	Daily Collections Report	Daily revenue by stream, collector and payment channel.	Daily	PDF; XLSX	FR.43; FR.25
SR.3	Bank and Channel Reconciliation Report	Matches transactions to bank or mobile money records; flags exceptions.	Daily	PDF; XLSX	FR.25; TR.15
SR.4	SCOA Export File	SCOA-coded export for posting to IFMIS.	Monthly	SCOA CSV	FR.44; TR.13
SR.5	Arrears Aging Report	Outstanding balances by age buckets.	Monthly	PDF; XLSX	FR.29; TR.39
SR.6	Payment Plan Compliance Report	List of payment plans, instalments and defaults.	Weekly	PDF; XLSX	FR.30
SR.7	Enforcement Action Register	All enforcement cases, GPS-stamped actions and outcomes.	Monthly	PDF; XLSX	FR.32; TR.29
SR.8	Waivers and Exemptions Report	Approved waivers and exemptions with full details.	Monthly	PDF; XLSX	FR.18
SR.9	Top Revenue Sources	Ranked streams and accounts with trend analysis.	Monthly	PDF; XLSX	FR.19; TR.39
SR.10	Revenue versus Target Performance	Actual collections compared with targets by stream and ward.	Monthly	PDF; XLSX	FR.19; TR.39
SR.11	License and Permit Register	All licenses and permits showing active, expired and pending status.	Monthly	PDF; XLSX	FR.20 to FR.22
SR.12	Asset Revenue Report	Revenue derived from county-owned assets.	Quarterly	PDF; XLSX	FR.15
SR.13	GIS Asset Map and Revenue Overlay	Map of assets and revenue sources with collection data.	Quarterly	PDF; GIS Shapefile	FR.16; FR.48
SR.14	Transaction Audit Report	All transactions with user, timestamp and action.	Monthly	PDF; XLSX	FR.49; TR.15
SR.15	Configuration Change Audit	All configuration changes affecting tariffs, SCOA and roles.	Monthly	PDF; XLSX	FR.42; TR.41
SR.16	Security Incident Report	Failed logins, access violations and resolved vulnerabilities.	Quarterly	PDF	TR.18 to TR.21
SR.17	Revenue Forecast Report	Predictive revenue by stream and ward.	Quarterly	PDF; XLSX	TR.40
SR.18	DR and BCP Test Report	Results of disaster recovery and business continuity tests.	Bi-annually	PDF	TR.33 to TR.35
SR.19	Public Transparency Report	Non-confidential summary for public release.	Quarterly	PDF; Web	FR.38; TR.39
SR.20	Collector Performance Report	Collections per collector or agent with efficiency metrics.	Monthly	PDF; XLSX	FR.35

ANNEX 11: DATA AND RECORDS GOVERNANCE

Section 1: Purpose

This Annex establishes the rules, responsibilities and standards for the secure, accurate and compliant management of all data and records within a CRMS, so as to ensure transparency, accountability and long-term integrity.

Section 2: Scope

This Annex applies to all data captured, processed, stored or transmitted by the CRMS, including taxpayer and revenue records, SCOA-coded transactions, audit logs and configuration changes, backups, archives and purged records.

Section 3: Data Ownership and Stewardship

Role	Responsibility
County Government (Data Owner)	Holds legal ownership of CRMS data within its jurisdiction.
National implementing agency (in respect of centralized data)	Holds ownership of the central repository and of inter-county integration data.
ICT Unit	Serves as technical custodian of databases, backups and recovery operations.
Revenue Department	Acts as custodian of taxpayer and transaction records and enforces SCOA compliance.
Data Protection Officer	Ensures compliance with data protection laws and privacy policies.
Internal Audit	Verifies governance controls and the accuracy of data.

Section 4: Data Classification

Classification	Description	Examples
Public	Accessible without restriction.	Aggregated revenue reports.
Internal	For internal staff use only.	Operational dashboards.
Confidential	Restricted to authorized roles.	Taxpayer profiles; SCOA codes.
Restricted	Highest level of sensitivity.	Encryption keys; investigation records.

Section 5: Data Quality Standards

Standard	Requirement	Linked FR/TR
Accuracy	Records must match source documents.	FR.6; FR.7; TR.44
Completeness	Mandatory fields enforced, with no null values where not permitted.	TR.44
Consistency	Standard formats for dates, SCOA codes and identifiers.	FR.14; TR.13
Timeliness	Updates posted in real time or near real time.	TR.26
Integrity	Referential integrity maintained across related datasets.	FR.1; FR.2

Section 6: Retention, Archiving and Disposal

(a) retention: financial, transactional and audit data shall be retained for not less than seven years;

(b) archiving: inactive records shall be archived after two years, but shall remain retrievable for audit;

(c) purging: purging shall be permitted only after the retention period and only with multi-level authorization and audit logging; and

(d) backup: daily full backups and hourly incremental backups shall be maintained, and quarterly restore tests shall be conducted.

Section 7: Records Management Controls

Control Area	Requirement	Linked FR/TR
Audit Trails	Immutable logs maintained for all create, update and delete actions.	FR.49; TR.15
SCOA Compliance	All transactions SCOA-coded.	FR.14; TR.13
Source Documentation	All records linked to scanned or uploaded supporting documents.	FR.3
Version Control	History maintained of tariffs, SCOA updates and configuration changes.	FR.12; TR.41
Retrieval and Search	Multi-criteria search functionality available for any record.	FR.8

Section 8: Access and Security Auditing

(a) user access rights shall be reviewed quarterly, with immediate revocation upon role change or exit;

(b) annual penetration testing and quarterly vulnerability scans shall be conducted; and

(c) logs shall be reviewed for suspicious activity and anomalies investigated.

Section 9: Compliance Monitoring and Indicators

(1) An annual Data and Records Governance audit shall be conducted by Internal Audit, with oversight inspections by the Commission and the National Treasury.

(2) Key Governance Indicators shall include:

(a) the percentage of records with complete SCOA mapping;

(b) the percentage of records meeting accuracy benchmarks;

(c) the number of unauthorized access incidents; and

(d) the backup and restore success rates.

ANNEX 12: GLOSSARY AND ACRONYMS

Section 1: Purpose

This Annex standardizes the definitions and abbreviations used throughout these Guidelines, in order to ensure clarity, accuracy and uniformity of interpretation.

Section 2: Glossary of Key Terms

Term	Definition
Access Control	The process of granting or denying requests to obtain and use information and system services, managed through Role-Based Access Control and Attribute-Based Access Control.
Ad hoc Report	A report created on demand to meet a specific information need outside scheduled reporting.
API (Application Programming Interface)	A set of protocols and tools that enable communication between systems.
Audit Trail	A secure, chronological record of all system activities showing the user, action and time.
Business Continuity Plan (BCP)	Documented procedures to ensure continued operations during and after a disruption.
Cutover	The planned process of switching operations from a legacy system to a new system.
Customer Ledger	A detailed account record showing all transactions, charges, payments and balances for a taxpayer.
Data Cleansing	The detection and correction or removal of corrupt, inaccurate or incomplete data.
Data Protection Impact Assessment (DPIA)	An assessment to identify and minimize data protection risks.
Disaster Recovery (DR)	The strategies and procedures used to restore IT systems, applications and data after a disruption.
End-of-Day (EoD) Process	The daily procedure of closing financial transactions, reconciling and locking entries.
End-of-Month (EoM) Process	The monthly closing procedure used to roll forward balances, age debt and lock the period.
End-of-Year (EoY) Process	The annual closing procedure for the fiscal year, including carrying forward balances and archiving.
Failover	Automatic switching to a standby system when the primary system fails.
Finance Act	Legislation outlining the revenue streams, rates and penalties for a fiscal year.
Geographic Information System (GIS)	A system for capturing, storing, analyzing and displaying spatial or geographic data.
Hypercare Period	The intensive vendor and project team support provided immediately after go-live.
Immutable Log	A log file that cannot be altered or deleted, ensuring audit integrity.
Integration Test	Verification that separate system components work together as intended.

Term	Definition
Maker-Checker Control	A control under which one user initiates a process and another approves it.
Multi-Factor Authentication (MFA)	A security measure requiring more than one verification method for login.
Multi-Tenancy	An architecture in which one system instance serves multiple clients with data segregation.
Parametric Configuration	The configuration of system behavior through parameters, without changes to code.
Payment Channel	The method used to process payments, such as mobile money, electronic funds transfer, USSD or point of sale.
Reconciliation	The matching of system records to bank or payment provider records to ensure accuracy.
Recovery Point Objective (RPO)	The maximum acceptable amount of data loss, measured in time.
Recovery Time Objective (RTO)	The maximum acceptable time to restore services after a disruption.
Standard Chart of Accounts (SCOA)	The uniform coding framework used for government accounting.
Tamper-Evident	A feature that shows when an attempt has been made to alter data or logs.
Transaction Ledger	A record of all transactions for a specific revenue stream, with SCOA coding.
Version Control	A system that records changes to files or configurations and allows rollback.

Section 3: Acronyms

Acronym	Full Form
ABAC	Attribute-Based Access Control
API	Application Programming Interface
BCP	Business Continuity Plan
BRS	Business Registration Service
CEC	County Executive Committee
CoG	Council of Governors
CRA	Commission on Revenue Allocation
CRMS	County Revenue Management System
CSV	Comma-Separated Values
DPIA	Data Protection Impact Assessment
DR	Disaster Recovery
EoD	End-of-Day
EoM	End-of-Month
EoY	End-of-Year
ELK	Elasticsearch, Logstash, Kibana
FR	Functional Requirement

Acronym	Full Form
GEA	Government Enterprise Architecture
GIF	Government Interoperability Framework
GIS	Geographic Information System
HMIS	Health Management Information System
IBEC	Intergovernmental Budget and Economic Council
ICT	Information and Communication Technology
ID	Identification
IFMIS	Integrated Financial Management Information System
IPRS	Integrated Population Registration System
JSON	JavaScript Object Notation
KPI	Key Performance Indicator
KRA	Kenya Revenue Authority
LTS	Long-Term Support
MFA	Multi-Factor Authentication
NTSA	National Transport and Safety Authority
OAG	Office of the Auditor-General
OCOB	Office of the Controller of Budget
OSR	Own Source Revenue
OTP	One-Time Password
PDF	Portable Document Format
PFM	Public Finance Management
POS	Point of Sale
RBAC	Role-Based Access Control
RPO	Recovery Point Objective
RTO	Recovery Time Objective
SAML	Security Assertion Markup Language
SAST	Static Application Security Testing
SCOA	Standard Chart of Accounts
SLA	Service Level Agreement
SSO	Single Sign-On
TCO	Total Cost of Ownership
TLS	Transport Layer Security
TR	Technical Requirement

Acronym	Full Form
UAT	User Acceptance Testing
UPS	Uninterruptible Power Supply
USSD	Unstructured Supplementary Service Data
UUID	Universal Unique Identifier
VAT	Value Added Tax
XML	Extensible Markup Language

ANNEX 13: COUNTY DATA OWNERSHIP DECLARATION FORM

County: …….
Contractor/Vendor:……..
Solution/System/Service: …….
Tender Number:……
Effective Date:……

1. Key Definitions

"County Data" means all data and information, in any form, provided by or on behalf of the County to Contractor, or received, accessed, generated, collected, processed, stored, transmitted, derived, or maintained by the Solution or Contractor under the Agreement, including records, files, databases, metadata, images, documents, personal/sensitive information, and any output or derivative containing or derived from County Data.
"Solution" means the software, platform, system, service, application, equipment, or other solution provided or operated by Contractor, including hosting, support, processing, storage, and analytics.

2. Sole Ownership by County

Contractor declares, certifies, and agrees that **all County Data processed by the Solution is and remains the sole and exclusive property of the County**. Contractor acquires **no ownership interest, title, lien, or proprietary right** in County Data. Contractor may process County Data only as necessary to perform under the Agreement, and must treat it as County property at all times, including after termination or expiration.

3. Full County Access at Any Time

The County shall have **full, unrestricted, and immediate access to all County Data at any time**, including during the term and after termination or expiration. The County may view, retrieve, export, copy, download, audit, and use County Data in any reasonably required format. Contractor shall not delay, restrict, condition, or withhold access and shall provide all necessary credentials, tools, formats, documentation, and assistance within 24 hours of a County request.

4. Restrictions on Use and Disclosure

Contractor shall not: (a) use County Data for any purpose other than performing under the Agreement; (b) sell, rent, license, transfer, disclose, or make County Data available to any third party without the County's prior written consent; (c) use County Data for Contractor's own business, marketing, product development, analytics, machine learning, or benchmarking unless expressly authorized in writing by the County; (d) retain County Data beyond the period necessary to perform or as required by law; or (e) claim any ownership, intellectual property, or proprietary right in County Data.

5. Security, Subcontractors, and Return of Data

Contractor shall maintain reasonable administrative, technical, and physical safeguards to protect County Data and shall promptly notify the County of any actual or suspected unauthorized access or disclosure. Any subcontractor or third party accessing County Data must be bound by written obligations no less protective than this Declaration, and Contractor remains fully responsible for their acts and omissions. Upon termination, expiration, or County request, Contractor shall return all County Data in a reasonably requested format, provide reasonable transition assistance, permanently delete or destroy all copies unless retention is required by law or authorized in writing, and certify completion in writing. These obligations survive termination or expiration for as long as Contractor possesses or controls County Data.

6. Contractor Certification and Signature

By signing below, the undersigned certifies that he/she is an authorized representative of Contractor and that Contractor agrees to and shall comply with this County Data Ownership Declaration.

Contractor Name: _____

Authorized Representative: _____

Title: _____

Signature: _____ Date: _____

Annex 14: DIRECT DEPOSIT OF COLLECTIONS DECLARATION FORM

Contractor/Vendor: ……..
Solution/System/Service: ……..
Tender Number : ……..
Effective Date: ……

1. Definitions

"Collections" means all payments, fees, charges, revenues, receipts, and other monies collected through or in connection with the Solution on behalf of the County Government of Makueni, in any form or medium.
"Solution" means the revenue management software, platform, system, service, application, equipment, or other solution provided or operated by Contractor, including related payment, collection, processing, hosting, support, and reporting services.

2. Direct Deposit of Collections

Contractor declares, certifies, and agrees that **all Collections through the Solution shall be deposited directly into County Government of Makueni bank accounts and/or collection instruments as instructed by the County**. Contractor shall not receive, hold, control, redirect, offset, or retain any Collections except as expressly instructed in writing by the County.

3. County Bank Accounts and Instructions

All Collections shall be deposited only into the bank account(s) and through the collection instrument(s) designated in writing by the County Government of Makueni. Contractor shall comply with all County instructions regarding account details, payment channels, collection instruments, reconciliation, reporting, and timelines, and shall confirm receipt and reconciliation as required by the County.

4. No Other Collection Instruments or Proxies

Contractor declares and warrants that the Solution **has no other collection instruments, accounts, proxies, payment channels, or authority to collect** on behalf of the County other than those expressly instructed in writing by the County. Contractor shall not

create, use, authorize, or permit any alternative account, instrument, proxy, agent, sub-account, or collection channel for County Collections without the County's prior written approval.

5. Restrictions and Safeguards

Contractor shall not: (a) commingle County Collections with Contractor or third-party funds; (b) deduct, set off, or retain any amount from Collections except as expressly authorized in writing by the County; (c) disclose or provide access to County collection accounts or instruments to any unauthorized third party; or (d) represent that it has authority to collect for the County beyond the written instructions. Contractor shall promptly notify the County of any unauthorized collection, discrepancy, or suspected fraud.

6. Reporting, Audit, and Survival

Contractor shall provide Collection reports and reconciliation records as required by the County and shall permit County audit of all Collection-related records. These obligations survive termination or expiration of the Agreement for as long as Contractor possesses or controls any Collection records or funds.

7. Contractor Certification and Signature

By signing below, the undersigned certifies that he/she is an authorized representative of Contractor and that Contractor agrees to and shall comply with this Direct Deposit of Collections Declaration.

Contractor Name: _____

Authorized Representative: _____

Title: _____

Signature: _____ Date: _____