

TERMS OF REFERENCE (TOR)

CONSULTANCY FOR SYSTEMS INTEGRATION AND API DEVELOPMENT BETWEEN THE KENYA INVESTMENT SINGLE WINDOW (KISW) AND PARTNER AGENCIES AND COUNTIES FOR THE DIGITAL ONE-STOP-CENTRE (OSC) IMPLEMENTATION

PROCURING ENTITY: KENYA INVESTMENT AUTHORITY (INVEST KENYA)

ASSIGNMENT TITLE: SYSTEMS INTEGRATION AND API DEVELOPMENT FOR MULTI-AGENCY DIGITAL INVESTMENT FACILITATION

SUBMISSION TO: KENYA JOBS AND ECONOMIC TRANSFORMATION (KJET)
PROJECT IMPLEMENTATION UNIT (PIU)

1. BACKGROUND AND CONTEXT

The Government of Kenya, through the Kenya Investment Authority (Invest Kenya), is implementing the Kenya Investment Single Window (KISW) under the Kenya Jobs and Economic Transformation (KJET) Project, supported by the World Bank.

The KISW serves as the Digital One-Stop-Centre (OSC) - a unified digital platform that consolidates investor services across multiple government agencies and Counties. It aims to simplify investment facilitation, enhance transparency, and reduce the time and cost required to start and operate a business in Kenya.

Following successful prototype development and initial integration with Kenya Revenue Authority (KRA), the next phase of implementation focuses on integrating additional agencies and Counties whose processes are critical to the investor journey.

2. RATIONALE FOR THE ASSIGNMENT

Integration of Digital OSC with agency and County services is a critical enabler for the Digital OSC's operationalization. Through the integration, investors using the Digital OSC will be able to:

- Register new companies and fulfill employer requirements
- Obtain sectoral and county permits required for investment
- Eliminate manual duplication and verification processes among different agencies and counties

3. OBJECTIVES OF THE ASSIGNMENT

The overall objective of this assignment is to design, develop, and operationalize API-based integrations between the KISW and the Licensing systems of government agencies and Counties to enable seamless data exchange and end-to-end investor service delivery, with first full go-live by the 4th month from contract initiation date (go-lives to continue until project completion). The following agencies and Counties have been identified as targets for integration that require KJET funding¹, however, subject to the Client's approval and concurrence of firm undertaking this assignment, any listed entity may be substituted with another public agency or County Government demonstrating comparable system readiness, technical feasibility, and licensing relevance :

1. Special Economic Zones Authority (SEZA)

¹ Go-live timing of Agencies/Counties are subject to change (e.g., in case where detailed technical discussions with Agencies/Counties conclude that integration before June 2026 will be difficult. County governments to integrate may be updated based on discussions with the respective counties

2. Export Processing Zones Authority (EPZA)
3. Water Services Regulatory Board and Water Service Providers
4. National Construction Authority (NCA)
5. Ministry of Agriculture
6. Pharmacy and Poisons Board (PPB)
7. Public Private Partnership Directorate (PPP)
8. Energy and Petroleum Regulatory Authority (EPRA)
9. Communications Authority
10. County Government of Kajiado
11. County Government of Kilifi
12. County Government of Narok
13. County Government of Homa Bay
14. County Government of Kisumu
15. County Government of Tana River
16. County Government of Lamu
17. County Government of Nyandarua
18. County Government of Nyeri
19. County Government of Kericho
20. County Government of Kirinyaga
21. Uasin Gishu County

The assignment will ensure interoperability, real-time data exchange, and workflow automation across participating entities in line with Government interoperability and data security standards.

The Systems Integrator will work in close collaboration with Invest Kenya, KJET PIU and, where necessary, with third-party system vendors responsible for the respective agency and County systems to ensure smooth, secure, and sustainable integration.

4. Scope of Work

The Systems Integrator will be responsible for the end-to-end design, implementation, modification, and operationalization of the integration between the Digital OSC platform and the identified government agencies and Counties.

The Systems Integrator shall act as the technical anchor for all interoperability activities, ensuring that system linkages are secure, stable, standards-compliant, and sustainable.

The work will be executed in close coordination with the Invest Kenya team, inclusive of its technical partner, UNCTAD, and agencies, counties and/or third-party system vendors responsible for existing digital platforms.

The work shall be delivered using an Agile project management approach, based on iterative and incremental implementation of integrations. During the inception phase, the Systems Integrator shall prepare an initial product backlog covering the prioritized integrations and related activities. Business analysis, API design, API development, testing, acceptance, and rollout shall then be carried out iteratively for each integration or group of integrations, through delivery sprints. This approach will allow each sprint to include only the activities that can realistically be implemented at that time, without requiring all business analysis to be completed before development begins.

The scope covers nine (9) interrelated workstreams as outlined below (modification of agency/County systems, where the modification is NOT related to integration with the Digital OSC, is not part of the scope):

A. INCEPTION AND REQUIREMENTS GATHERING

1. Inception

- Develop a detailed Inception Report outlining the workplan, methodology, and project governance structure. This should include a Stakeholder and Governance Diagram that clearly defines roles, responsibilities, decision-making authority, escalation paths, and coordination interfaces among Invest Kenya, UNCTAD, participating agencies/Counties, the Systems Integrator, and any third-party system vendors involved in the Digital OSC integration.
- Conduct a kick-off workshop with the Invest Kenya team, and all participating agencies and Counties to confirm objectives, timelines, and roles.
- Establish a joint working group consisting of Invest Kenya ICT, KJET PIU, UNCTAD technical team, and agency/County ICT representatives.

2. Requirements Analysis

- Conduct a systems analysis for each agency and County to identify IT systems (e.g., applications, databases, and APIs) relevant to the investor services to be integrated.
- Map all data elements, process flows, and service touchpoints between Digital OSC and agency/County systems.
- Document functional and non-functional requirements, including security, performance, and data protection needs. The Systems Integrator shall also identify and document Environmental and Social (E&S) risks and mitigations relevant to digital integration: Environmental and Social Management Framework (ESMF), Labor Management Procedures (LMP), Stakeholder Engagement Plan (SEP), and grievance mechanisms

- Identify gaps or custom developments needed on either side (Digital OSC or agency/County systems).
- Produce a framework to trace requirements to guide subsequent technical work.

B. Integration Architecture Design

1. Enterprise Integration Blueprint

- Define integration patterns (e.g., REST APIs, message queues, event-driven workflows) based on each agency/county's capability.
- Develop logical and physical system architecture diagrams showing connectivity between Digital OSC, APIs, and agency back-ends.
- Specify data transformation, orchestration, and synchronization logic for all service flows.

2. API and Data Exchange Standards

- Define API structures (endpoints, payloads, methods) and standard data exchange formats (JSON/XML).
- Develop API documentation and schema definitions for all endpoints.
- **Definition of the authentication and authorization mechanism.**
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- Ensure compliance with the Data Protection Act (2019) and the Government ICT Authority's cybersecurity standards.

3. Integration Governance and Versioning

- Design a mechanism compatible with the Digital OSC for access control, throttling, and performance monitoring (e.g., API gateway and management layer).
- Establish a version control mechanism for all integrations to ensure consistency and upgradability.
- Define clear governance structures, including service-level agreements (SLAs) and change management procedures.

C. API DEVELOPMENT AND CONFIGURATION²

1. Core Integration Development

- Develop, configure, and deploy **Application Programming Interfaces (APIs)** connecting Digital OSC to APIs developed for each agency/County's system for their prioritized processes. Where agency systems do not expose APIs, design and implement middleware adapters or data connectors in collaboration with the agency's system vendor.
- Configure error handling, logging, and retry mechanisms to ensure transaction reliability.

² In the instance where the government Enterprise Service Bus become available during implementation, explore the opportunity to facilitate data exchange via this platform

- Implement consistent **authentication and authorization mechanisms** (e.g., OAuth 2.0 / JWT tokens / API keys).
- Develop data validation and transformation logic for consistent mapping across systems.

2. **Third-Party Collaboration**

- Coordinate with third-party system vendors to access, test, and integrate legacy or proprietary systems.
- Work with UNCTAD's technical team to align new APIs with the existing Digital OSC architecture and data model.
- Maintain a joint technical change log documenting all modifications, configurations, and dependencies.

3. **Security and Compliance**

- Implement secure communication protocols (HTTPS/TLS 1.2+) and token-based authentication for all integrations.
- Set up role-based access controls and audit trails for all API transactions.
- Implement consistent **authentication and authorization mechanisms** (e.g., OAuth 2.0 / JWT tokens / API keys)
- Conduct periodic vulnerability assessments and compliance checks in line with Invest Kenya and GoK cybersecurity frameworks.

D. TESTING, VALIDATION, AND QUALITY ASSURANCE

1. **Testing Framework**

- Develop a Testing and Quality Assurance Plan covering functional, integration, performance, and security testing.
- Create sandbox environments for testing Digital OSC and agency/county interactions before deployment.
- Conduct end-to-end integration testing for all transaction workflows (create, read, update, delete).
- Verify data accuracy, latency, and system performance metrics under expected loads.
- Establish acceptance criteria early for each integration in measurable performance terms (e.g., uptime, response time, transaction success), within the parameters described the SLAs in Section H.1.

2. **User Acceptance Testing (UAT)**

- Facilitate joint UAT sessions with Invest Kenya, KJET PIU, UNCTAD, and the agency technical teams.
- Document findings, test results, and resolutions in a UAT Completion Report.
- Ensure all critical issues are resolved before production rollout.

E. DEPLOYMENT AND GO-LIVE

1. Production Deployment

- Prepare a Deployment Plan detailing go-live steps, rollback procedures, and downtime management.
- Migrate all approved configurations to production environments in coordination with UNCTAD and agency ICT teams.
- Conduct go-live verification tests to confirm system stability and data consistency.
- Establish monitoring and alert systems to track integration health.

2. Operational Handover and Quality Guarantee

- Document all configuration parameters, dependencies, and operational procedures.
- Provide post-go-live hypercare support for at least three(3) months, ensuring continuity, troubleshooting, and removal of identified issues

F. CAPACITY BUILDING AND KNOWLEDGE TRANSFER

1. Training

2. Conduct targeted **training sessions for Invest Kenya ICT staff, SDIP ICT Staff, KJET PIU, agency ICT focal points, and external data providers**

- Provide training on API management, data mapping, and issue resolution.
- Provide training on E&S risks and mitigation, grievance handling, SEA/SH awareness, and stakeholder engagement

3. Documentation

- Prepare comprehensive technical manuals, including API documentation, troubleshooting guides, and integration blueprints.
- Maintain all technical documentation in a current state throughout the contract, updated within fifteen (15) business days of any material change, in a version-controlled repository accessible to Invest Kenya. The same obligation applies to subcontractors.
- Transfer all system credentials, codebases, and configuration backups to Invest Kenya at project closure.

4. Sustainability Planning

- Develop a maintenance and sustainability plan for post-project continuity.
- Propose institutional arrangements for ongoing support, upgrades, and onboarding of future agencies.

G. COLLABORATION AND GOVERNANCE

1. Joint Delivery Model

- Operate within the Invest Kenya– KJET PIU-UNCTAD Joint Technical Team structure, attending all coordination and progress review meetings.
- Liaise closely with agency ICT directors and vendor representatives.
- Participate in fortnightly sprint reviews, workshops, and other governance forums within Invest Kenya, in line with the Agile delivery approach.

2. Communication and Reporting

- Provide regular progress updates, including risk logs, issue trackers, and workstream summaries.
- Submit monthly progress reports to Invest Kenya and the KJET PIU through the Director, Digital & Technology.

H. QUALITY, PERFORMANCE, AND SECURITY ASSURANCE

1. Service-Level Commitments

- Guarantee system uptime of at least 99.5% during the post-deployment support period.
- Ensure API response times of under 2 seconds for standard transactions.
- Compliance with interoperability standards

2. Cybersecurity Compliance

- Ensure all integration components meet GoK cybersecurity guidelines and are certified free of vulnerabilities
- Assess all integrations so that they satisfy cybersecurity risk standards (e.g., as defined by GoK, WB)

3. Audit and Traceability

- Generate compliance reports (e.g., transaction success rates, data integrity checks, and access control records)

I. COORDINATION WITH THIRD PARTIES

- Directly coordinate with UNCTAD and the Agency/County internal technical teams, or third parties contracted by the Agency/County to carry out the above activities (including the items listed below). The system integrator may subcontract the development activities, within the procured budget, to the third-parties contracted by the Agency/County (e.g., where development/ modification of the Agency/County systems is required)
 - Directly coordinate with UNCTAD on matters of architectural alignment and API design compliance for Digital OSC.

- Collaborate with agency/County internal technical teams, or third parties contracted by the Agency/County to manage their respective systems to access existing data models, endpoints, custom extensions, and implement the integrations
- Manage integration dependencies with other national platforms, such as eCitizen and the Konza Data Centre, to ensure interoperability across the digital ecosystem.
- Where external teams are involved, the Integrator shall act as the technical coordinator ensuring consistency, quality, and accountability across all integration workstreams.

5. EXPECTED DELIVERABLES

Deliverable	Description	Timeline
Inception Report	Workplan, methodology, and integration schedule	By end of 2 nd week from project initiation date
Integration Blueprint	Architecture, APIs, data exchange models	By end of 4 th week from project initiation
Developed Integration	Integration (e.g., by APIs or Middleware) configured and tested for at least 8 agencies and counties	At least 8 agencies/counties by 4 th month from project initiation (Go-live support to continue beyond), and the remainder by May 31 st 2027
UAT and Validation Report	Results of functional and performance testing	At least 8 agencies/counties by 4 th month from project initiation (Go-live support to continue beyond), and the remainder by May 31 st 2027
Deployment and Go-Live Report	Production rollout summary	At least 8 agencies/counties by 4 th month from project initiation , and the remainder by May 31 st 2027
Training and Documentation	Capacity building and technical manuals	By May 31 st 2027
ESCP Compliance Report	Documentation demonstrating compliance of all integration activities with the Kenya Jobs and Economic Transformation (KJET) Project Environmental and Social Commitment Plan (ESCP).	By May 31 st , 2027
Final Project Report	Lessons, sustainability, and maintenance plan	By May 31 st 2027

6. DURATION AND LOCATION

The consultancy (excluding hypercare support) should run between **June 1st, 2026, and May 31st, 2027, for 13 months**, based in Nairobi, with possible field visits (e.g., agency headquarters, data centers) as required.

7. INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

- **Contracting Authority:** Kenya Investment Authority (Invest Kenya)
- **Technical Partner:** UNCTAD (lead the development of the Digital OSC)
- **Participating Agencies/Counties** (*listed in 3. OBJECTIVES OF THE ASSIGNMENT*)
- **Oversight and Coordination:** KJET PIU and Invest Kenya
- **Governance:** Fortnightly Sprint Review sessions chaired by Invest Kenya³ with joint progress tracking between Invest Kenya, UNCTAD, KJET PIU, and any other Invest Kenya internal governance mechanisms (to embed the digital Transformation in Invest Kenya)

8. CONSULTANT PROFILE – MANDATORY TEAM COMPOSITION AND QUALIFICATIONS

The selected Systems Integrator should have the following qualifications:

- Minimum 10 **years'** experience in large-scale systems integration in the public sector.
- Proven experience in API design, enterprise service buses (ESB), and cloud integration frameworks.
- Demonstrable work on multi-agency or government-to-government (G2G) integration assignments.
- Experience working in collaborative setups with international development partners (preferably World Bank, IFC, UN, or similar).
- Skilled personnel in software architecture, API development and integration and integration, database management, and cybersecurity.
- Capacity to coordinate with third-party vendors and manage subcontractors effectively.
- Proven ability to implement authentication and authorization mechanisms (e.g., OAuth 2.0 / JWT tokens / API keys)
- Certificate of registration from the Data Protection Commission for Data Controller and Data Processor
- Certificate of accreditation from ICT Authority (ICTA Level 2 or 1 Systems & Applications)
- Certificate of accreditation from ICT Authority (ICTA Level 2 or 1 Information Security)
- Certification in Quality Management Systems (ISO 9001:2015)

³ Steering Committees may be held weekly at the beginning of the project to ensure smooth operation

- Certification in Information Security Management System (ISO 27001:2022)
- Certification in Business Continuity Management System (ISO 22301:2019)

The Systems Integrator is expected to provide skilled personnel in software architecture, API development and integration, database management, and cybersecurity. The table below summarises the key qualifications and experience for the experts.

Key Expert	Minimum Qualification	Required Experience
Team Leader(1) Systems Architect (1)	Master's in Computer Science, IT, or related field	Minimum 10 years' experience in systems integration and enterprise architecture; proven experience with government systems
Integration specialist / API Developer (At least 2)	Bachelor's in Computer Science or related field	7+ years in API development (REST, SOAP, JSON, XML); expertise in secure data protocols
Cybersecurity Expert	Bachelor's in Computer Security or equivalent certification (CISSP, CEH)	5+ years in system security, penetration testing, and encryption protocols
Business Analyst	Degree in Business IT or related field	5+ years in system requirement analysis and process mapping
Environmental/Social Specialist	Degree in Environmental/Social Sciences or related field	7+ years in safeguards compliance, stakeholder engagement, grievance mechanisms, and SEA/SH risk management

During the tender process, the Consultant shall provide documentation demonstrating its qualifications, including relevant experience in government and/or multi-agency systems integration and references from similar assignments.

The Consultant shall also submit a detailed technical proposal including staffing arrangements, team composition, and level of effort.

The Financial Proposal shall Not be required at this stage and details shall be contained in the request for proposal issued to shortlist firms.

9. PAYMENT SCHEDULE

Payments will be made upon submission and approval of milestones. All costs related to the integration with agencies and counties (**incl. fees to be disbursed to 3rd party suppliers contracted by the agencies and counties**) should be covered by the System Integrator within the confines of the payments made according to this schedule.

#	MILESTONE	PAYMENT (%)
1	Submission and approval of the inception report	10%
2	Successful integration, UAT approval, and completion of Go-Live and post-go-live support for the first 8 agencies / counties	35%
3	Successful integration, UAT approval, and completion of Go-Live and post-go-live support of the remaining agencies and counties	45%
4	Completion of Final Project report	10%

10. REPORTING AND SUPERVISION

The consultant will report to Invest Kenya, under the supervision of the KJET Component 1 Coordinator. Technical oversight and quality assurance will be jointly conducted by:

- UNCTAD Technical Team (Digital OSC)
- Invest Kenya
- KJET PIU

11. EXPECTED OUTCOMES

The integration should be delivered by May 2027, including the items below.

- Fully operational API-based integrations between Digital OSC and agencies and counties, with at least eight (8) agencies live at June 2026
- End-to-end investor facilitation through a single digital interface.
- Improved transparency, service timelines, and user experience.
- Strengthened institutional collaboration between Invest Kenya, UNCTAD, and partner agencies.
- Demonstrated compliance with the KJET ESCP, including integration of grievance mechanisms, SEA/SH risks, stakeholder engagement, and exclusion list adherence, ensuring all technical outputs are consistent with World Bank Environmental and Social Standards

12. INTELLECTUAL PROPERTY, CONFIDENTIALITY, AND DATA PROTECTION

All data, documentation, and technical resources accessed during the assignment shall remain the property of Invest Kenya and the Government of Kenya. The consultant shall not disclose, reuse, or store data externally without written consent from Invest Kenya. All activities must comply with the Data Protection Act (2019) and *applicable World Bank safeguards*, including the ESCP, ESMF, LMP, SEP, and grievance mechanisms.

13. APPLICABLE PROCUREMENT METHOD

Selection method: Quality and Cost-Based Selection (QCBS) as per the World Bank Procurement Regulations for IPF Borrowers', dated July 2016 and revised September, 2023 (Fifth Edition).

14. APPROVAL

These Terms of Reference (ToR) are issued by Invest Kenya under the Kenya Jobs and KJET Project for review and approval by the Project Implementation Unit (PIU).

15. CONFLICT OF INTEREST

All bidders must demonstrate independence and disclose any existing contractual or operational relationships with the Agencies or their current system providers inclusive of the KISW. Where such relationships exist, bidders must clearly demonstrate how conflicts of interest will be mitigated to ensure a fair and transparent implementation process.

16. FACILITIES TO BE PROVIDED BY THE CLIENT

The Client will provide the Consultant with access to the Kenya Investment Single Window (KISW) and all relevant documentation necessary for the execution of this assignment. The Client will further facilitate coordination between the Consultant and relevant Ministries, Departments, and Agencies (MDAs) to ensure timely stakeholder engagement throughout the assignment.

ANNEX 1: AGENCY MAPPING:
List of agencies and integration partners.

1.	Special Economic zones Authority	External developers - Pesaflow
2.	Export processing zones Authority	External developers - Pesaflow
3.	Water Services Regulatory Board and Water Service Providers	External developers
4.	National Construction Authority (NCA)	Internal developers
5.	Agriculture and Food Authority	External developers
6.	Pharmacy and Poisons Board (PPB)	Internal developers
7.	Public Private Partnership Directorate (PPP)	No system
8.	Energy and Petroleum Regulatory Authority (EPRA)	Internal developers
9.	Communications Authority of Kenya (CAK)	External developers - CopyCat Developers
10.	County Government of Kajiado	External developers - Craft Silicon
11.	County Government of Kilifi	External developers-Eden contractors
12.	County Government of Narok	External developers
13.	County Government of Nyandarua	External developers - Konza
14.	County Government of Kisumu	External developers
15.	County Government of Tana River	No system
16.	County Government of Lamu	No system
17.	County Government of HomaBay	External developers - Craft Silicon
18.	County Government of Nyeri	No system
19.	County Government of Kericho	External developers
20.	County Government of Kirinyaga	External developers

21.	Uasin Gishu County	External developers
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