KENYA REVENUE AUTHORITY

ISO 9001:2015 CERTIFIED

CLARIFICATIONS / ADDENDUM "SET 3"

KRA/HQS/RFP 042/2023-2024: REQUEST FOR PROPOSAL FOR SUPPLY, DESIGN, IMPLEMENTATION, COMMISSIONING, MAINTENANCE AND SUPPORT OF ENTERPRISE INTEGRATION AND API MANAGEMENT PLATFORM, ASSOCIATED TAXPAYER TOUCH POINTS & ANALYTICS FOR A PERIOD OF THREE (3) YEARS

	BIDDERS' REQUEST FOR CLARIFICATION / QUESTION	KRA's RESPONSE
1	Does the Authority have a preference for either an OnPremise or SaaS delivery model?	Bidders are advised that KRA requires the Enterprise Integration and API Management Platform be deployed OnPremises
2	an the bidders, particularly the multinationals, submit financial proposals in USD instead of KES	Bidders are advised that the financial proposals should be in Kenya Shillings (KES)
3	We are requesting for clarification on the weights provided on the API Platform (C1-5) and Taxpayer Touch-points (C6) (Stage 3 - **API 45 Marks and Touch points 5 Marks**). Does this reflect the relative scopes of works of the contract?	The weights mentioned are for criteria that will be used when evaluation proposals from bidders
4	The summary of cost table is not clear, because of the following 1If implementation is planned to take 6 months after which the warranty will be applicable for 12 months. The summary of costs table states that Year 1 will be under warranty.	
5	Again the summary of costs wants us to quote for year 2 and year 3 for post implementation annual maintenance support. From the above it means part of year 1 and year 2 will form the warranty period.	Bidders are advised year 1 starts after commissioning and acceptance of the solution.
6	Total number of APIS to be exposed?	Bidders are advised as a start 100- 200 APIS will be exposed.
7	How many APIs are to be exposed internally?	This detail will be shared with the successful bidder
8	How many API are to be exposed externally?	This detail will be shared with the successful bidder
9	What would be the expected transaction volume for both internal and external?	Bidders are advised that KRA's current requirement is 10,000,000 API calls per hour. This is expected to grow due to increased digitalization of government services without affecting performance.

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10	Transaction rate during peak hours?	KRA's current requirement is 10,000,000 API calls per hour. This is expected to grow due to increased digitalization of government services without affecting performance.
11	Expected number of internal API consumers?	This detail will be shared with the successful bidder
12	Expected number of third parties consuming these APIs ?	This detail will be shared with the successful bidder
13	Is there a requirement to have dedicated API gateway for **Internal** and **External** facing.	The bidder is to deploy separate instances of the API gateway for internal and external access
14	Page 44- C.2 NON-FUNCTIONAL REQUIREMENTS Deployment Environment Provide the detailed physical and logical architecture of the solution. Clearly showing a mapping of different software components to the hardware. Apart from production and disaster recovery environments, what are the expectations and/or practices for non-production environments? i.e. Should only development environments be scoped or should non-production also include testing, quality assurance, system integration testing and pre-production. Please also suggest High availability and Disaster Requirements.	As stated: Internal development and QA (Internal Testing) environments should be deployed with DR. Production environment/workloads should be deployed on two (2) on premises production sites high availability in each site and the sites Active-Active configuration with a third DR site. External Developer sandbox environment deployed either on-premises or cloud with high availability and DR. The bidder is required to advice on requirements of deployments.
15	page 44: C.2 NON-Functional Requirements Deployment Environment 1.5-The solution deployment on cloud should have availability across multiple availability zones. We understand that KRA is looking for On Premise Deployment. Please Suggest Relevance of this clause. Is KRA looking for Cloud Deployment for the API Management platform along with On Premise Platform. Please suggest use case for the same. Will the solution be acceptable with 100% environments deployed on cloud.	Bidders are advised that KRA requires the solution should be deployed OnPremises. The clause refers to the solution's ability to support on cloud native deployments on the On Premise platform
16	Page 48. C.2 NON-FUNCTIONAL REQUIREMENTS4 Centralized Platform Management 4.1O-Support central management of hardware, software and cloud instances	KRA requires the solution to Support central management of hardware, software and cloud instances.

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	We understand the scope of Management is limited to software and cloud environment. Hardware and virtualization management is to be taken care by KRA. Please confirm	Management of underlying hardware and virtualization infrastructure will be managed by KRA.
17	Page 49: C.2 NON-FUNCTIONAL REQUIREMENTS 6 Platform Licensing 6.4. Clearly indicate any module/feature not licensed with the platform (Costs of these should also be included separately in the commercial proposal.	KRA expects that these line items are itemised independently (i.e. not as a summary line item). These and other line items will be part of the commercial proposal and subjected to financial evaluation.
	We understand that cost of these line items, mentioned separately will not be used for Financial Evaluation.	
18	Page 49 C.2 NON-FUNCTIONAL REQUIREMENTS7 Client-Side Enablement Capabilities	Bidder is expected to detail how their solution can meet the mentioned client side enablement capabilities.
	IS KRA looking for agent to be deployed on the client side to meet the said functionality?	
19	Page 51-C.2 NON-FUNCTIONAL REQUIREMENTS8 Capacity Sizing and Dimensioning The solution should be able to scale vertically and horizontally as data volume and transaction processing increase, allowing it to meet KRA's current requirement of 10,000,000 API calls per hour while also accommodating future growth due to increased digitalization of government services without affecting performance. The solution should be able to support traffic with average message size for the API payload of 15 Kilobytes. The solution should be able to support onboarding of the current setup of 100-200 APIs while also accommodating a 25% annual growth in the number of APIs. As part of the bid, approximately 40% of the existing APIs shall need enrichment and transformation by the API Management Platform. The vendor should also specify clearly all the benchmarks used for capacity planning in an easily computable and clear	The documentation of APIs and service interfaces will be shared with the successful bidder.
	Scoping Enterprise Application Integration efforts. Not all existing applications may have well-defined APIs or Service interfaces, and additional integration effort may be required to expose these systems as services using an API management platform. Can a summary of existing systems/applications that require integration be provided, along with the existing interfaces (i.e. REST/SOAP XML) be provided in order to establish a baseline for implementation efforts and statement of work?	

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20	Page 55:C.2 NON-FUNCTIONAL REQUIREMENTS3 Security – Industry/Government Certifications Supported 3.1 The platform must have support for PCI-DSS standard version 4.0 or the latest In addition to technology standards, organizations often intend to adopt, or are required to comply with international standards such as PCI/DSS, EDIFACT, ISO/IEC 19845:2015, ISO20022 or UN/CEFACT. What standards other than PCI-DSS will KRA require implementation and/or adoption of?	The bidder solution should provide PCI-DSS standard version 4.0 or the latest as a minimum. All other supported standards can be mentioned as part of bidder response.
21	Page 44. NON-FUNCTIONAL 1 Deployment Environment 1.1 Provide the detailed physical and logical architecture of the solution. Clearly showing a mapping of different software components to the hardware. Infrastructure. The deployment of an API Management and EAI solution will require compute, network and storage resources. Does KRA intend to provision such resources using existing infrastructure, or should a bill of material be provided for such resources (infrastructure)? In addition, does KRA have a preference for the usage of virtualized infrastructure (hypervisor) of physical (bare metal) deployment?	Bidder is required to clearly mention resource requirements for infrastructure for the deployment of the Enterprise Integration and API Management solution. KRA shall provide virtualized hardware resources for on-premise components deployment. The solution should support deployment on both Virtualized and cloud native environments. The solution should support deployment on cloud native platforms: i.e solution should support installation on Kubernetes or OpenShift via Helm Charts/Kubernetes Operators.
22	Page 63:C.6 ASSOCIATED TAXPAYER TOUCHPOINTS & ANALYTICSC.6 ASSOCIATED TAXPAYER TOUCHPOINTS & ANALYTICS The bidder will be required to implement taxpayer touch points, with simplified customer journeys for various taxpayer interactions. The bidder is required to provide proposed architectures and journey maps detailing how their solution will satisfy the use cases below. Bidders will be evaluated for suitability of the proposed journey maps, solution features and detailed architecture. Please elaborate on what is desired from the API Management Solution Provider. A> Is KRA looking for integration of the API Management Solution with Existing POS solution or Bidder has to provide POS Solution and Integrate the same with the API Management. In case Bidder has to	A> The bidder is to provide the point of sale (POS) solution and propose customer journey maps and features of the solution. The POS solution will integrate with KRA systems

integrate with existing POS system, Please provide details of the same to define integration and customization efforts for the same.

B> Revenue assurance on telecommunication data, sales and mobile money transactions- DO Bidder has to provide the solution or integrate with the system. Please provide details of Existing system.

C> Rental Income Management solution- Do Bidder has to provide the solution or integrate with the system. Please provide details of Existing system.

D> solution for manufacturers, importers & end users of mobile devices to declare, pay and verify the tax on the devices using the IMEI numbers- Do Bidder has to provide the solution or integrate with the system. Please provide details of Existing system.

E> simplified touchpoints for taxpayers for registration, filing and payment of taxes

F> solution that enables real time revenue collection through integration of KRA systems with payment service provider (PSP) systems- Do Bidder has to provide

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through APIs developed and published on the API gateway.

B> The bidder is to provide the revenue assurance solution and propose customer journey maps and features of the solution. The revenue assurance solution will integrate with KRA and telecommunications opertor systems through APIS developed and published on the API gateway.

C> The bidder is to provide the rental income management solution and propose customer journey maps and features of the solution. The rental income management solution will integrate with KRA systems through APIS developed and published on the API gateway.

D> The bidder is to provide a solution for manufacturers, importers & end users of mobile devices to declare, pay and verify the tax on the devices using the IMEI numbers. The bidder is also to propose customer journey maps and features of the solution. The solution will integrate with mobile network operators and the regulators for device activation through APIs developed and published in the API gateway

E> The bidder is to provide a solution for simplified touchpoints for taxpayers for registration, filing and payment of taxes. The bidder is also to propose customer journey maps and features of the solution. The solution will integrate through APIs developed and published in the API gateway

F> The bidder is to provide that enables real-time revenue collection through integration of KRA systems with payment service provider (PSP) systems. The bidder is also to propose

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	the solution or integrate with the system. Please provide details of Existing system.	customer journey maps and features of the solution. The solution will integrate through APIs developed and published in the API gateway KRA will facilitate access where necessary
23	Page 56: Other iC.2 Non-Functional Requirements industry recognized threats IS KRA Looking for solution to have protection against OWASP Top 10 API Security Risks – 2023. Please suggest	The bidder solution should state how the proposed solution protects against the listed threats in C3-Gateway Security 5.1
24	page 52: Non Functional 8 Capacity Sizing and Dimensioning 8.2 Provide explicitly and expressly any special hardware requirements. Preferences for the proposed solution shall be stated and details, justifications provided. Some of the API Solution required modernize platforms for the implementation and resiliency of the API Management Solutions. Is KRA ok to deploy Redhat Open shift as platform for API solution?	The solution should support deployment on cloud native platforms: i.e solution should support installation on Kubernetes or OpenShift via Helm Charts/Kubernetes Operators.
25	What are the various systems that KRA has and what are the systems & applications participating in the Enterprise Integration?	The list of systems and documentation of APIs and service interfaces will be shared with the successful bidder.
26	What is the integration protocolling the existing integrated system support? (Like HTTP, SOAP, FTP, SFTP, DB conn, etc.)	The existing systems integration protocols vary. The Solution is expected to support all protocols and capabilities mentioned in C.1 CRITICAL REQUIREMENTS 17 - Support for Standard Transport Protocols
27	When you say Internal systems, are the systems and applications that are accessed by the employees, trusted partners, etc.? 5	This refers to KRA systems hosted within KRA data centre environments
28	When you mention External Systems, do you mean these are the systems that are developed, maintained and operated by External Vendors? 6	External systems refer to systems NOT hosted within KRA data centre environments
29	We understand here that the ask here is to Design, Develop, Implement, Deliver, commission support and maintain. But is safe to assume that Discovery / Requirement Analysis and QA are also a part of it?	This is correct
30	Is the intention of this project to execute with onsite-offshore model or onsite-only or offshore-only model?	The project should have an onsite team consisting of the core implementation team. Some support can be provided off-shore
31	What technology would your developer community be oriented towards?	There is no limitation to the technology our developer community will be oriented towards.

32	Do you have a ticket management system already (Issue tracker, Issue Management) etc. can you list them? Will they participate in any of the integrations?	This will be shared with the successful bidder.
33	Do you already have Analytical Tools, if so, can you please list them? Will they participate in any of the integrations?	This will be shared with the successful bidder.
34	What is the underlying technology for KRA's Active Directory? (Do you mean to say you have MicroSoft AD?) like LDAP, Custom DB etc.?	KRA has an LDAP for identity management of internal users.
35	Are you looking for same technology vendor for API, Integration, Messaging, Data Processing, Data Persistence or you are open for multiple technologies if there is an orchestration among them?	Bidders are required to provide details of the solution proposed including product name, brand, version, solution OEM and all the components that will form part of the solution. Any other technology should be mentioned as during technical requirements response using the provided criteria.
36	When you say in page 98, the taxpayer touch point's, are you referring touch points as API end points (URL paths)?	The touchpoints refers to the listed solutions, customer journeys and their integration to APIs published on the API gateway.
37	What current systems will we be integrating to?	The list of systems and documentation of APIs and service interfaces will be shared with the successful bidder.
38	On page 52 point (8.3) can you elaborate on the 100-200 APIs? Which are these? What do they do? What is the size?	The list of systems and documentation of APIs and service interfaces will be shared with the successful bidder.
39	Do the POS devices need to be certified like the ETR devices?	The POS solution does not have to be device based.
40	Section C1 critical requirements mentions 1.1 The solution should include implementation services to develop and publish APIs.	The proposed solution needs to be able to cater to all requirements outlined in the RFP document whether Non-Functional, Security, etc
	Does the solution need to be able to develop APIs, or to manage the non-functional requirements like most of the API Management solutions do? For example, does the solution need to be able to connect to an internal system and retrieve information from it and expose it as a REST API? Or should it only be there to make sure the API is safe and exposed to the consumers it allowed to?	
41	C1 4.1 mentions about BPMN and abilities of teams to perform user tasks as part of the API suite, does it mean we will have to provide also a workflow solution alongside API management?	The proposed solution should have the capability to manage workflows. Bidder should mention whether this capability will be provided out-of box, by third party solution, customisation as per response criteria.

42	C1, 1.2 There are provisions for CI/CD Pipelines, what infrastructure or pipeline management tools is KRA Using at the moment? Does it mean the deployment of APIs to different environments should be able to be done by a pipeline tool, such as Jenkins, using CI/CD?	The preferred mode of deployment is through CI/CD pipeline
43	We request you share your ICT Policy to check if its compatible with our solutions.	Minimum security requirements have been provided in the RFP document. Detailed Minimum Security baseline standard including but not limited to endpoint security policies shall be provided by KRA to the successful bidder.
44	On section C2 part 1.5, the deployment is required to have multiple AZ, does it mean outside Kenya?	KRA requires that the solution should be deployed OnPremises.
	If deployment is done to containers in the cloud, can the deployment be done outside of Kenya's borders? For example south Africa or Ireland in Europe?	This requirement refers to the solution's ability to support on cloud native deployments if the option arises in future
45	On section C2 part 2.4 and 2.5 will KRA provide a load balancer? Does KRA has F5 or another solution to load balance API requests? If a container based rollout is chosen load can be balanced to different zones/locations?	KRA has load balancer in place the details will be shared with the successful bidder.
46	Page 46 of 156:Section C- Touch Point Prototyping Please explain the requirement in details what is. Required	This refers to a Demonstration of prototypes developed for the use cases shared as in C.6 of technical requirements.
47	Page 45: Internal Development and QA environment deployed on premise with DR. Please confirm if the all the environment should support TPS as that of the production. Since our understanding is that only features should be supported	The TPS requirement is for the production environment.

NOTE: Bidders are advised that the tender closing/opening date remains as **15th March 2024**. Bids security to be aligned to the new tender closing date i.e. Bid securities must be valid up to **14th March 2025.**

The clarification forms part of the bidding document and is binding to all bidders. All other terms and condition of the tender remains the same.

Regards,

Bernard Mukundi
For: Deputy Commissioner – Supply Chain Management
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