KENYA REVENUE AUTHORITY

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CLARIFICATION "SET 1"

25th JANUARY, 2021.

To all Prospective bidders,

REF: TENDER NO.KRA/HQS/NCB-027/2020-2021– SUPPLY, DELIVERY, DESIGNING, IMPLEMENTATION, COMMISSIONING, MAINTENANCE AND SUPPORT OF INTEGRATED ENTERPRISE IDENTITY AND ACCESS MANAGEMENT (IAM) SOLUTION

Kenya Revenue Authority wishes to inform prospective bidders of the clarifications highlighted below:

NO.	SPECIFICATION	BIDDER'S QUERY	KRA RESPONSE
1.	Page 26, section 2, point 2 of the document states: "Enterprise Applications Infrastructure consisting of about fifteen (15) application platforms running over sixty (60) unique internal business systems. The fifteen application (15) applications are required to be on-boarded during the solution implementation."	Can a list of those be provided?	Refer to Table 2 below for Application Profiles
2.	Page 29, point 2.8 of the document states: "The consultant MUST ensure that the Integrated Enterprise Identity Management Solution is configured to Integrate with Security Information	What is your SIEM solution?	IBM Qradar, latest Version,
3.		What is your PAM solution?	CyberArk PAM, latest version.

	and Event Management (SIEM) and Privileged Account Management (PAM) solutions. KRA has implemented both the SIEM & the PAM."		
4.	Pg 26.Kenya Revenue Authority runs an enterprise ICT Infrastructure that includes the following: 1. Approximately ten thousand (10,000) users accessing various applications. 2. Enterprise Applications Infrastructure consisting of about fifteen (15) application platforms running over sixty (60) unique internal business systems. The fifteen application (15) applications are required to be on-boarded during the solution implementation. 3. Enterprise Local and Wide Area Network (LAN and WAN) Infrastructure of over seventy (70) branch offices with users accessing applications which are centralized	Please confirm on the total number of users - Internal and External for which the IAM solution needs to be provided. This is critical information as licensing of the product depends on named users.	The scope of this tender covers internal users only. Employees-8,000 Contractors- 0 Customers-0 Other External users (specify each)-0
5.		To be able to integrate the 15 applications, details of applications are required. Please provide following information for each of the 15 applications. a> Name of the Application b> Desktop or web based	Refer to Table 2 below for Application Profiles

		c> Hosting Platform like java, IBM, oracle, apache etc. d> Version details e> Database platform f> Where is the user repository - Separate LDAP or within Database	
6.		a) Please confirm how many environments KRA is looking to deploy Like Product & test. Additionally we assume that bidder has to provide licenses for all environment. b) Is KRA looking for High Availability of the Identity and Access management solution? Please confirm c) Is KRA looking for On premise solution of they are open for cloud based solution and are ready to extend their User Directory and application for cloud based integration. Please confirm	a) We will have developer, test and production environment. It depends with the Vendor but the requirement is to ensure production environment is licensed. b) Yes, high availability is mandatory with a minimum of active standby setup. c) KRA is looking for on-premises solution.
7.		a) We assume that hardware, OS, Database etc. required for the installation and configuration of the IAM solution will be provided by KRA. Please confirm.	a) The Authority, will provide.

8.	Pg 27, 1.4 Support and Maintenance Successful bidder MUST provide three (3) years support and maintenance services with manufacturer/authorized premier support renewable annually commencing on the commissioning date.	We understand that KRA is looking for following a> OEM Software support and maintenance for a period of 3 years b> Bidder skill support for a period of 3 years. Please confirm	a) The Authority requires, OEM Software support and maintenance for a period of 3 years and billed per annum (quote per year). b) The Authority requires, bidder skill support for a period of 3 years and billed per annum (quote per year).
9.	Pg 26,28 d) Build capacity in the KRA internal team through training, skills transfer and hands-on involvement to enable KRA staff to competently support and maintain the solution Successful bidder MUST provide the IAM solution authorized training for all the components procured. The training and capacity building should cover at least fifteen (15) KRA staff.	a) We assume KRA is open for web based virtual online training from authorized training partner. Please confirm	a) KRA will prefer a physical training from an authorized training partner.
10.	2.3 The consultant MUST ensure that the Integrated Enterprise solution is configured to provide multi-factor authentication (MFA) implementing the following authentication types; Password, Soft-token, Adaptive/risk-based authentication, One-time passwords (OTPs) sent via SMS, smart phone application and email. The	a) Please elaborate total number of the users for which the MFA functionality needs to be implemented. Also elaborate on type of MFA to be facilitated for user. b) Please confirm how many users for soft Token, how many for	a) It will be used for all 8,000 users. The solution should support all the listed MFA types. b) All users will have the selected MFA types implemented in their profiles.

	bidder is required to explain/show/demonstrate how the requirement will be achieved	password, how many for sms based etc c) Additionally we believe that SMS gateway for SMS based authentication will be provided by KRA. Please confirm. And If so, please share what communication protocol the SMS gateway uses to integrate with other applications.	c) Yes, the sms gateway will be provided. It supports the common sms protocols including REST APIs.
11.	2.9 The consultant MUST ensure that the Integrated Enterprise Identity Management Solution is deployed in High Availability, at a minimum active-standby mode. The bidder is required to explain/show/demonstrate how the requirement will be achieved	a) We understand that the proposed solution needs to be deployed at single datacentre with Active and passive instance (HA) at single site. Please assist if any DR also needs to be provisioned. b) We assume that load balancers if required for the deployment for redundancy and HA for some components of IAM solution will be facilitated by KRA. Please confirm c) Please also confirm that all the 15 applications are on premise application or some are cloud based as well. Please confirm. d) Please elaborate What is the mechanism for external users to use KRA applications. Is it	a) We have a primary and secondary data centres, though during implementation focus will be on the primary site. b) Yes, the load balancer will be facilitated. c) All the 15 applications to be integrated with IAM solution are on premise, though there exist cloud based applications. d) The scope of this tender covers internal users only.

		through VPN or applications are accessible via public internet.	
12.	2.11 The consultant MUST ensure that the Integrated Enterprise Identity Management Solution integrates with select fifteen (15) KRA applications that are accessed by both KRA internal users and select external users. The bidder is required to explain/show/demonstrate how the requirement will be achieved	a) For an IDM solution the integration with various application efforts from both IAM tool and Application vendor. We understand that any modification required on the 15 application side for enabling the integration will be performed by KRA. Please confirm	a) KRA will facilitate the modifications required as directed/supervised by the IAM vendor.
13.	3.1 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to authenticate Active Directory user identities. The bidder is required to explain /show /demonstrate how the requirement is to be achieved	a) Please confirm the version of Microsoft Active Directory in use at KRA	a) Version 2016
14.	3.4 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to integrate with all KRA applications The bidder is required to explain /show /demonstrate how the requirement is to be achieved	a) To be able to integrate the 15 applications, details of applications are required. Please provide following information for each of the 15 applications. a> Name of the Application b> Desktop or web based c> Hosting Platform like java, IBM, oracle, apache etc. d> Version details e> Database platform	a) Refer to Table 2 below for Application Profiles b) All the 15 applications to be integrated with IAM solution are on premise, though there exist cloud based applications. c) KRA will facilitate the modifications required as directed/supervised by the IAM vendor.

		f> Where is the user repository - Separate LDAP or within Database b) Please also confirm that all the 15 applications are on premise application or some are cloud based as well. Please confirm. c) For an IDM solution the integration with various application efforts from both IAM tool and Application vendor. We understand that any modification required on the 15 application side for enabling the integration will be performed by KRA. Please confirm	
15.	3.5 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to integrate with SMS gateway for token delivery. The bidder is required to explain /show /demonstrate how the requirement is to be achieved.	a) We assume that SMS gateway for SMS based authentication will be provided by KRA. Please confirm. And please share what communication protocol the SMS gateway uses to integrate with other applications.	a) Yes, the sms gateway will be provided. It supports the common sms protocols including REST APIs.
16.	3.7 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to use SSL certificates/Encryption techniques to integrate. The bidder is required to explain/show/demonstrate how the solution meets this requirement.	a) We assume that KRA is looking for solution to support Self signed certification for communication between various IAM components. Please confirm	a) No, certificates will be provided for the SSL Integration/encryption.

17.	4.2 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to provide Identity & Access Management compliance and governance auditing and reporting. The bidder is required to explain /show /demonstrate how the requirement is to be achieved	a) What compliance, regulatory or operational reports need to be generated from IDAM solution. Please confirm	a) The IAM Solution should generate reports based on Audit Logs.
18.	The consultant MUST ensure that the Enterprise Identity Management Solution is configured to support workstation lockout/idle time scenario	a) This functionality is more for endpoint and workstation and not part of Identity Lifecycle management. Please confirm. Or KRA is looking for Web Interface/GIU to have an timeout option. Please confirm	a) The IAM Solution should lock the application after a given idle time. Locking of the workstation is not part of Identity Lifecycle management.
19.	5.1 The consultant MUST ensure that that the Enterprise Identity Management Solution is configured to implement the following authentication types: · Password · Soft-token · Web Services authentication capabilities · One-time passwords (OTPs) sent via SMS, voice call or email. · Mobile phone-based authentication · FIDO The bidder is required to explain /show /demonstrate how the requirement is to be achieved	a) Please confirm the total number of users for the MFA. We assume KRA is looking for solution to support all the said options for MFA and based on feasibility of users, location, mobile devices, application they will use the specific authentication method.	a) KRA has a total number of 8000 internal users. Correct, KRA is looking for a solution to support all the said options for MFA and based on feasibility of users, location, mobile devices, application they will use the specific authentication method.
20.	5.3 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to support push-	a) Please confirm the mobile devices used by the KRA user for which the solution needs to be	a) The solution should support all mobile devices. However,

	notification technology for supported tokens. The bidder is required to explain /show /demonstrate how the requirement is to be achieved	deployed. Is this Android, IOS or Windows, Blackberry. b) Also we assume that all these devices uses the latest version of the software. Please confirm	most users use IOS and Android Devices. b) Most use supported version.
21.	9.6 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to support multiple workflow request initiation from a user or an administrator. The bidder is required to explain /show /demonstrate how the requirement is to be achieved	Is KRA using any change management and helpdesk system with which the IAM system has to interface. Please confirm	a) Yes for both change management and helpdesk system
22.	10.5 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to support integration with other reporting engines. The bidder is required to explain /show /demonstrate how the requirement is to be achieved	a) Is there any reporting engine currently in place at KRA. Please confirm	a) Yes, the Authority has a reporting engine.
23.	11.2 Successful bidder is required to: · Review the existing Business process model for the purpose of developing a desired model, while meeting the KRA identity management objectives and best practice. · Design an enterprise Identity Management solution architecture that addresses the needs of both the existing and future models of operations.	a) We assume that KRA will provide all the existing business processes and User lifecycle currently management processes currently in place for various business applications and systems.	a) Yes, KRA will provide.

	· Lead the implementation of the designed architecture that meets the KRA requirements and the requirements of this bid · Work closely with stakeholders to ensure that risks are collected, prioritized, and mitigated throughout the life cycle of the project. · Lead the Enterprise Identity Management Solution implementation and build capacity in the KRA internal team to competently implement and maintain the solution · Hand hold KRA internal implementation team in maintenance and support of the Solution on a need basis. The bidder is required to explain /show /demonstrate how the requirement is to be achieved		
24.	11.3 KRA preference is to partner with OEM(s) in implementing suitable solution integration. In this regard the OEM(s) will take a lead role in implementing the solution. Bidder are therefore required to demonstrate proof of OEM(s) partnership in providing leadership in implementing the integrated solution	a) Total number of IAM deployments in Kenya are very limited. Additionally KRA has asked in the identified specification for OEM involvement for execution of the project. Will KRA allow to use OEM references and CV's for the bidders experience.	a) if the OEM be the lead in implementer then KRA will allow use of OEM references and CV's for the bidders experience.

25.	11.5 The main deliverable of the Identity Management Solution Specialist is a fully functional Enterprise Identity Management Solution as defined under the scope, operational in both test and live environments – as well as internal staff capacity building. The bidder is required to explain /show /demonstrate how the requirement is to be achieved	a) What is the expected schedule for conducting Capacity Building training. Will it be conducted at start of project, or after go-live.	a) Class training will be conducted before commencement of the project, during implementation Hands-on training will be conducted and finally, if there are any certifications they can be done at the end of the project.
26.	SECTION VII- PRICE SCHEDULE TABLE 9: PRICE SCHEDULE NOTE: The payments will be spread over this period and made against successful deliverables	a) We assume that the attached schedule is for the price schedule and delivery of IAM services. b) However the cost of the licenses has to be quoted with three years support has to be quoted separately. c) We request KRA that the payment of software licenses to be paid on delivery and delivery of services to payed on milestone basis.	a) Yes, correct. b) The support and maintenance has to be quoted each year separately up to three years. c) Payment of software licenses will be paid on delivery and delivery of services will be paid on milestone basis.
27.	**Users**	a) What are the typical user categories? We got that the exact number if 10k, but if you can please list and describe each type of Enterprise user. (Employee, Contractor, Others)	a) All users will be employee/internal.

28.		a) Are the lifecycles of different user types currently being managed through some process? Please provide a brief for each type	a) Each application manages its own users. Most use their own databases.
29.		a) Are the master data repositories for these users identified? (Employees in HRMS, Contractors in AD, Other types in CRM etc.)	a) Yes, though the master data repository for the IAM solution will be the AD.
30.	**Applications**	a) Our understanding is that IGA platform is being used for Identity governance and Identity provisioning. One more platform is required for access management, SSO and MFA. Pls confirm our understanding of your requirement	a) Emphasis will be on access management, SSO and MFA platform.
31.		a) Application categorization under web based/thick client based/thin client based? b) Approx. number of applications are 15 but pls elaborate on where they are hosted in DC or in cloud?	a) Refer to Table 2 below for Application Profiles. b) All the 15 applications to be integrated with IAM solution are on premise, though there exist cloud-based applications.
32.		a) What is the total user base per application? b) Can we get the list of all 15 applications and their details to just check on technical feasibility	a) Business applications- 3000 users, Common applications- 8000 users. b) Refer to Table 2 below for Application Profiles.

33.		a) We read that "Enterprise Applications Infrastructure consisting of about fifteen (15) application platforms running over sixty (60) unique internal business systems". Can you elaborate more on this 60 internal business systems w.r.t 15 applications?	a) The focus will be on implementing IAM on 15 applications, Internal Staff will integrate the remaining applications based on the capacity building conducted.
34.		a) What are the authentication repositories for different applications to be integrated with IAM solution (Active directory, databases, other directories etc.)	a) Mostly it is the Active directory and databases. For more information refer to Table 2 below for Application Profiles.
35.		a) How is the provisioning process currently working for most of these applications? (Paper and email-based approval? ITSM based approval? Other?)	a) Paper and email-based approval.
36.		a) For Identity management solution to integrate and provision, are interfaces available with these applications to directly provision into the respective authentication repository? (Availability of applications authenticating against AD, Database interfaces, web services interfaces on application layer etc)	a) No interfaces are available. The IAM vendor will work/direct other vendors for the provision of the interfaces.

37.		a) Is there a uniform naming convention for user accounts across different applications? Or are there some uniquely identifying attribute such as Employee ID available with each account in the application?	a) There is a uniform naming convention.
38.	**IDAM Functionality**	a) Are SoDs identified for applications and required to be defined in the IGA solution? What is the indicative total number of SoD conflicts to be configured with IGA solution?	a) We will inherit the roles as they are configured in each system hence no SoDs conflicts are expected.
39.		a) We are considering application remediation to define roles, access privileges and SoD violation matrix before onboarding application to IGA as part of the scope? Pls confirm	a) Not in scope because we will inherit the roles as they are configured in each system.
40.		a) Are the application roles dynamic in nature and role mining required?	a) The IAM solution should be able to inherit the roles as configured in each application by the respective admin.
41.		a) Is the RBAC structure across the organization known and documented?	a) Each application has its own RBAC structure documented.
42.		a) What is the birth-right applications to be granted upon user creation for each type?	a) The IAM solution should inherit the ones defined in the respective application.
43.		a) Is there a need of Request based access control to be	a) Yes.

		implemented? This capability is to provide an interface to users for requesting additional access.	
44.		a) Is the reporting hierarchy and contractor sponsors known for all employees and contractors?	a) Yes, but the scope of this tender covers internal employees.
45.		a) Are the approval workflows for account provisioning, additional access provisioning and user profile modification etc defined?	a) Some are defined whilst others shall be elucidated during implementation.
46.		a) Is self-service feature of Identity management required? Example: Forgotten password functionality through challenge-response, modifying profile attributes etc.	a) Yes.
47.		a) Is the password synchronization across different applications is required?	a) Yes
48.		a) How many applications require SSO to be implemented? b) Approx. number of users to be covered for SSO?	c) 15 Applications. Refer to Table 2 below for Application Profiles. a) 8000 Internal users.
49.		a) Are all applications to be covered under SSO are web based?	a) Refer to Table 2 below for Application Profiles.
50.		a) Are there any compliance issues identified for IDAM?	a) Currently, none for IDAM.
51.		a) Are all 15 applications are integrated into Access management Platform?	a) No. That's the scope for this tender.

52.		a) How many applications need to be integrated each quarter to access management? b) What is the distribution between on-prem and cloud-based applications?	a) At least 5 applications per quarter. b) All the 15 applications to be integrated with IAM solution are on premise, though there exist cloud-based applications.
53.	**Other requirements**	a) How is remote access being facilitated?	a) Through LAN, which in turn will be used to access the various applications.
54.		a) What are MFA requirements? b) For how many users?	a) 2.3 The consultant MUST ensure that the Integrated Enterprise solution is configured to provide multi-factor authentication (MFA) implementing the following authentication types; Password, Soft-token, Adaptive/risk-based authentication, One-time passwords (OTPs) sent via SMS, smart phone application and email. The bidder is required to explain/show/demonstrate how the requirement will be achieved.. b) The solution is to serve 8000 internal users.
55.		a) How many LDAP servers are there?	a) There are 5 LDAP servers that replicate each other.

		b) All global user IDs are stored here? c) What is the architecture in line with GDPR/CCPA or any other local regulation?	b) No, some are stored in the applications" databases. c) The IAM solution vendor will design the architecture.
56.		a) What is on boarding workflow for users and contractors? Users & contractors are kept in same store or different?	a) Users and contractors are kept in the same user store.
57.		a) Are passwords part of user repository?	a) Currently the passwords are part of the user store. However, during the IAM implementation, users will make use of passwords generated from the solution.
58.		a) Is self-service portal part of the scope of identity management?	a) Yes, it is.
59.		a) What is the current access of users are being determined and approved by application owners (Certification or attestation process)? Please describe	a) It is determined and approved by application owners, the IAM solution should be able to inherit the roles as configured in each application by the respective admin.
60.		a) How many applications are required to have User Access Certification done automatically through envisaged IAM solution? (Mandated due to compliance, complexity or any other reason)	a) All the 15 applications.

61.		a) How do business units and business application owners undertake the User Access Review process? Is the process defined and managed with roles of attesting managers clearly known?	a) This is out of scope, the IAM solution should be able to inherit the roles as configured in each application by the respective admin.
62.		a) What is the current User Access Certification cycle for each application and what is the remediation process?	a) The IAM solution should be able to inherit the User Access Certification cycle as configured in each application by the respective admin.
63.		a) How many active domains are in scope?	a) We will integrate the solution with one active directory.
64.		a) Is support & maintenance is part of the scope? b) How many shifts do you anticipate from support perspective? c) We understand the intention is to have 8x5. Pls confirm	a) Yes, Support and maintenance is part of the scope. b) We anticipate the Support will be available whenever needed. c) No, KRA operates on a 24/7 basis.
65.		a) Can we assume L1 will be handled separately by common helpdesk not in the scope of this RFP?	a) Yes, level 1 issues will be handled by a common helpdesk.
66.		a) What are the compliance reporting requirement? Is this OOTB or there are any customized reports to be generated?	a) If the OOTB reporting feature covers all audit queries, it will be acceptable, otherwise customized reports will be required.

67.		a) Is there HA & DR part of the platform in scope as well? The IAM Solution should lock after a given idle time b) If yes can we assume its active/passive	a) Yes it is part of the scope. b) Active/passive is the minimum requirement, however active/ active is the recommended option.
68.		a) In terms of operations, are there any functional requirements such as uptime, auth per sec, onboarding time etc.	a) Acceptable performance requirements will be determined during IAM solution implementation.
69.		a) Please advise if KRA is open to a cloud solution?	a) No, we are not open to a cloud solution.
70.		a) Please confirm if the implementation can be done remotely or whether the consultant must be on-site?	a) The implementation can take place remotely, however on-site is the recommended option.
71.	3.5 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to integrate with SMS gateway for token delivery.	a) Does KRA usases SMS gateway for MFA	a) Yes it does.
72.	4.9 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to support workstation lockout/idle time scenario	a) Could you please explain more on this with example.	a) The IAM Solution should lock after a given idle time
73.	4.12 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to allow the assignment of rights to make roles actionable/active	a) Could you please explain more on this with example.	a) User can be made active /inactive using an IAM functionality.

74.	5.3 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to support pushnotification technology for supported tokens.	a) Could you please explain more on this with example.	a) The IAM solution should allow delivery of information to a mobile device or desktop computer without a specific request from the solution, e.g Gmail and Yahoo.
75.	7.3 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to provide context sensitive authentication that allows the creation of risk-based policies that look at the context as the user is authenticating and dynamically determine which authentication actions to require the user to take.	a) Does it mean to say depending on the risk it should ask for autentication mechanism or MFA or questions will be asked while authenitcating	a) Yes, the risk will determine the authentication mechanism to be used.
76.	10.3 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to implement user maintenance auditing (identity updates, password changes, self-administration, etc.).	a) Does it mean it should run audit based on the mentioned critariea and generate report b) also please put some light on self administration.	a) Yes. b) Users should be able to change their passwords and unlock their accounts by themselves.
77.	10.5 The consultant MUST ensure that the Enterprise Identity Management Solution is configured to support integration with other reporting engines.	a) which reporting engine KRA uses	a) SIEM tool is used for logs and common monitoring tools e.g graffina.

78.		a) For cloud applications, please provide the number of internal and external users	a) All the 15 applications to be integrated with IAM solution are on premise, though there exist cloud-based applications.
79.		a) Please describe the existing hardware infrastructure where the IAM will run with details	a) The IAM solution will run on a Virtualized environment.
80.		a) Any hardware specification preference for the IAM	a) Out of scope for this tender.
81.		a) If IAM will run on Virtualized environment or BM; b) If Virtualized, specify the virtualization technology	a) IAM will run on Virtualized environment. b) The virtualization technology will be provided during implementation.
82.		a) Are there applications accessed remotely? b) Any requirement to extend remote access of application after IDM implementation. c) A list of application that will require remote access	a) Yes. b) IDM solution will be accessed via VPN then redirect to the specific application. c) Currently not applicable.
83.		a) Is there VPN in place for remote access to existing applications? b) What VPN solution/Technology is this?	a) Yes. b) VPN solution/Technology will be provided during implementation

84.	We can see in the procurement plan 2020-2021 of KRA that allocated budget for consultancy services for identity and access management is 25.357.304 KES.	a) Can you confirm that this is the real budget of the project? Based on our experience in similar projects, it is not sufficient, keeping in might the amount of applications needed to integrate.	a) Bidders are required to provide their actual cost for consultancy services and implementation of the IAM solution. Budgetary issues are KRA internal processes.
85.		a) Are each of these applications currently running in production?	a) Yes, the applications are currently running in production.
86.		a) What is current authentication mechanism used in these applications? b) Where is information about system users stored? For example in LDAP storage, in database, etc.	a) The authentication mechanism is unique to each application, most of them being custom made. b) Information about system users is stored in LDAP storage and applications database. Although for the IAM solution LDAP storage will be used.
87.		a) Is there currently any implementation of single-sign-on (SSO)?	a) No, the available implementation is the on proof of concept.
88.		a) Is there currently any implementation of federation?	a) No, the available implementation is the on proof of concept.
89.		a) Must the application be Enterprise or Open Source/Freeware applications allowed?	a) KRA is open to Enterprise or Open Source/Freeware solutions.

Application profiles.

Table 2: **Application profiles.**

Application (Platform)	No of Unique Applications	Access Type	Developed	Users	User Repository	Notes
Apache Tomcat	15	Web Based	Custom	Internal, External	Database	All these applications authenticate locally in their internal databases. Most of these applications are running on the latest version. Some applications have multiple instances. The solution is to cover both primary and secondary sites in High Availability.
IIS	10	Web Based	Custom	Internal, External	Database	
Oracle Web-logic	2	Web Based	Custom	Internal, External	Database	
SAP	4	Web Based & Client	SAP	Internal, External	Database	
JBOSS/Java	7	Web Based	Custom	Internal, External	Database	
Lotus Domino	2	Web Based & Client	Custom	Internal	Database	
Oracle Forms	1	Native Client	Custom	Internal	Database	
Active Directory	2	Client	Custom	Internal	LDAP	
Angular JS	1	Web Based	Custom	Internal, External	Database	
Oracle	1	Web Based (Cloud)	Oracle	Internal	Database	
IBM QRadar GUI Application Framework	1	Web Based	Custom	Internal	LDAP	
Cyberark	1	Web Based & Client	Custom	Internal	LDAP	
RPX Application	1	Web Based	Custom	Internal	Database	
VB	2	Web Based	Custom	Internal, External	Database	

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Exalytics	1	Web-based/	Oracle	Internal	Database	There are approximately 50 applications in each site (a total of approximately 100 applications on both sites). Internal users access applications on LAN, external users access applications over the internet Some applications use reverse proxy
Apache HTTP	7	Web Based	Custom	Internal	Database	
IBM Websphere	4	Web Based	Custom	Internal	LDAP	
Koha	4	Web Based	Koha	Internal	LDAP	
Exo	2	Web Based	Exo	Internal	LDAP	
DSpace	1	Web Based	DSpace	Internal	LDAP	
Note: Prospective bidders are hereby advised to align their Tender Security to the new tender opening date i.e **2nd February, 2021** to be valid upto and including **1st February, 2022**						

The clarification form part of the bidding document and is binding to the bidder. All other terms and conditions of the tender remain the same. You are therefore required to immediately acknowledge the receipt of this clarifications.

Regards,

Benson Kiruja
For: Deputy Commissioner - Supply Chain Management
BM