

KENYA ASSOCIATION OF MANUFACTURERS

TERMS OF REFERENCE

FOR

DESIGN, DEVELOPMENT, DEPLOYMENT AND MAINTENANCE OF ENERGY MANAGEMENT AWARDS (EMA) WEB BASED TOOL, WEBSITE AND PORTAL

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INTRODUCTION

The Kenya Association of Manufacturers (KAM) was established in 1959 as a private sector body and has evolved into a dynamic, vibrant, credible and respected business membership association that unites industrialists and offers a common voice for businesses.

KAM provides an essential link for co-operation, dialogue and understanding with the Government by representing the views and concerns of its members to the relevant authorities. In pursuit of its core mandate of policy advocacy, KAM promotes trade and investment; upholds standards; and, encourages the formulation, enactment and administration of sound policies that facilitate a competitive business environment and reduce the cost of doing business.

Danish International Development Agency (DANIDA) works closely with KAM to promote resource efficiency in the private sector. DANIDA and the KAM have partnered to develop an online, web-based Energy Management Awards (EMA) portal and a website and seeks the services of a qualified consultant to undertake this assignment. A key aspect of the portal is the automation of the EMA processes.

SECTION I - LETTER OF INVITATION

CEEC/EMA/2019/01

REQUEST FOR PROPOSAL (RFP) FOR DESIGN, DEVELOPMENT, DEPLOYMENT AND MAINTENANCE OF ENERGY MANAGEMENT AWARDS (EMA) WEBSITE AND PORTAL.

Invitation to Submit Proposal

May 10, 2019

<u>Subject: RFP for Design, Development, Deployment and Maintenance of Energy Management Awards</u> (EMA) website and portal

You are requested to submit a proposal for consulting services in respect of the above referenced subject. Your proposal could form the basis for a contract between your firm / institution and the Kenya Association of Manufacturers (KAM).

To enable you submit a proposal, please find enclosed:

- a) Annex I: Proposal submission: Description of requirements for proposal submission;
- b) Annex II: Terms of Reference (TOR), containing a description of KAM requirements for which these services are being sought.

In case you will need clarification on the RFP kindly feel free to contact us through <u>info@kam.co.ke</u>. We will be more than willing to share and clarify on any query regarding the project. Kindly make sure you have the words **EMA Portal** in the subject of the email.

Note:

This letter is not to be construed in any way as an offer to contract with your firm/ institution.

Yours Sincerely,

Phyllis Wakiaga Chief Executive SECTION II - INFORMATION TO CONSULTANTS

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SECTION II - INFORMATION TO CONSULTANTS

2.1 Introduction

- 2.1.1 Kenya Association of Manufactures will select an individual consultant among those invited to submit proposals or those who respond to the invitation for proposals in accordance with the method of selection detailed under this section and consistent with the regulations.
- 2.1.2 The consultants are invited to submit a technical proposal and a financial proposal for consulting services required for the assignment stated in the letter of invitation (Section I)
- 2.1.3 In the assignment where the procuring entity intends to apply standard conditions of engagement and scales of fees for professional services, which scale of fees will have been approved by a relevant authority, a technical proposal only may be invited and submitted by the consultants. In such a case the highest ranked individual consultant in the technical proposals shall be invited to negotiate a contract on the basis of the set scale of fees. The technical proposals will be the basis for contract negotiations and ultimately for a signed contract with the selected individual consultant.
- 2.1.4 The consultants must familiarize themselves with local conditions as regards the assignment and take them into account in preparing their proposals. To obtain adequate information on the assignment and on the local conditions, consultants are encouraged to liaise with the procuring entity regarding any information that they may require before submitting a proposal.
- 2.1.5 The client will provide the inputs and services specified in the special conditions of contract needed to assist the individual consultant to carry out the assignment.
- 2.1.6 The cost of preparing the proposal and negotiating the contract including any visit to the procuring entity are not reimbursable as a direct cost of the assignment. The procuring entity is not bound to accept any of the proposals submitted.
- 2.1.7 The procuring entity's employees, committee members, board members and their relative (spouse and children) are not eligible to participate in the tender.

2.2 Clarification and amendment to the RFP documents

2.2.1 Individual consultant may request clarification of any of the RFP documents not later than Seven (7) days before the deadline for the submission of the proposals. Any request for clarification must be sent in writing by post, fax or email to the procuring entity's address indicated in the special conditions of contract. The procuring entity will respond by post, fax or email to such requests and will send written copies of the response (including an explanation of the query but without identifying the source of inquiry) to all individual consultants invited to submit proposals.

- 2.2.2 At any time before the deadline for submission of the proposals, the procuring entity may for any reason, either at its own initiative or in response to a clarification requested by an intended individual consultant amend the RFP. Any amendment shall be issued in writing, fax or email to all invited individual consultants and will be binding on them. The procuring entity may at its discretion extend the deadline for the submission of the proposals.
- 2.2.3 Clarification of tenders shall be requested by the tenderer to be received by the procuring entity not later than 7 days prior to the deadline for submission of tenders.
- 2.2.4 The procuring entity shall reply to and clarifications sought by the tenderer within 3 days of receiving the request to enable the tenderer to make timely submission of its tender.

2.3 Preparation of Proposals

- 2.3.1 The individual consultant's proposal shall be written in English language.
- 2.3.2 In preparing the Technical proposal, the individual consultants are expected to examine the documents consisting of the RFP in detail. Material deficiencies in providing the information requested may result in rejection of a proposal.
- 2.3.3 While preparing the Technical proposal, the individual consultant must give particular attention to the following:
 - (a) If an individual consultant considers that he/she does not have all the expertise required for the assignment he/she may suggest in the proposals other individual(s) who will assist in the assignment but they will not be party to the contract for the purpose of the performance of the assignment. An individual consultant will not propose other individual consultants invited to submit proposals for the assignment. Any individual consultant in contravention of this requirement shall automatically be disqualified.
 - (b) For all the staff who will be involved in the exercise of the proposals to consultant must indicate their responsibility in the assignment and also the staff time as necessary.
 - (c) The curriculum vitae (CV) of the staff proposed must be submitted with the proposal.
- 2.3.4 The Technical proposal shall provide the following information;
 - (a) The individual consultants CV and a brief of any recent experience of assignment of a similar nature. For each assignment the brief should indicate the profiles of staff involved, contract amount and the individual consultant's involvement.
 - (b) Any comments or suggestions on the Terms of Reference and a list of service and facilities requested to be provided by the procuring entity.
 - (c) A description of the methodology and work plan for performing the proposed assignment.
 - (d) Any additional information requested in the special conditions of contract.
- 2.3.5 The Technical proposal shall be separate from the financial proposal and shall not include any financial information.

2.3.6 The bidders will be expected to make a mandatory technical pitch presentation of the concept to Kenya Association of Manufacturers' Team after the technical proposals are opened as part of the evaluation process.

2.4 Financial proposal

- 2.4.1 In preparing the financial proposal, the individual consultants are expected to take into account the time required in completing the assignment as outlined in the RFP documents. The financial proposal will therefore be quoted in fees per day or month. The financial proposal may also include other costs as necessary, which will be considered as reimbursable.
- 2.4.2 The Financial proposal should include the payable taxes.
- 2.4.3 The fees shall be expressed in Kenya Shillings.
- 2.4.4 The Financial proposal must remain valid for 90 days after the submission date. During this period the individual consultant is expected to keep available at his own cost any staff proposed for the assignment. The procuring entity will make best efforts to complete negotiations within this period. If the procuring entity wishes to extend the validity period of the proposals, the consultants who do not agree, have the right not to extend the validity of their proposals.
- 2.4.5 The financial proposal must comply with the law governing the profession of the consultant.

2.5 Submission, Receipt and opening of proposals

- 2.5.1 The technical proposal and the financial proposal (if required) shall be prepared in indelible ink. It shall contain no interlineations or overwriting, except as necessary to correct errors made by the individual consultants. Any such corrections must be initialed by the individual consultant.
- 2.5.2 For each proposal the individual consultants shall prepare the proposals in the number of copies indicated in the special conditions of contract. Each Technical proposal and financial proposal shall be marked "ORIGINAL" or "COPY" as appropriate. If there are any discrepancies between the original and the copies of the proposal, the original shall govern.

2.5.3 The original and all copies of the Technical proposal shall be placed in a sealed envelope clearly marked "TECHNICAL PROPOSAL", and the original and all copies of the financial proposal in a sealed envelope duly marked "FINANCIAL PROPOSAL". Both envelopes shall be placed in an outer envelope and sealed. This outer envelope shall bear the procuring entities address and other information indicated in the appendix to the instructions to consultants and clearly marked "DO NOT OPEN before (*day, date and time of submission of the proposal*)

2.5.4 The completed Technical and Financial proposals must be delivered at the submission address on or before the time and date of the submission of the proposals indicated in the appendix to the instructions to consultants. Any proposals received later than the closing date for submission of proposals shall be rejected and returned to the individual consultant unopened. For this purpose the inner envelope containing the technical and financial proposals will bear the address of the individual consultant submitting the proposals.

- 2.5.5 After the deadline for submission of proposals the outer envelope and the technical proposals shall be opened immediately by the opening committee. The financial proposals shall be marked with the individual consultants number allocated at the time of opening the outer envelope and the technical proposals but shall remain sealed and in the custody of a responsible officer of the procuring entity up to the time set for opening them.
- 2.5.6 The proposals are to be submitted to KAM House, 15 Mwanzi Road, Opposite Westgate Mall, by MAY 29, 2019, at 12.00 p.m. late submissions will not be opened.

Please Label the Envelope "EMA PORTAL"

2.6 **Evaluation of the Proposal (General)**

- 2.6.1 From the time the proposals are opened to the time of the contract award, if any individual consultant wishes to contact the procuring entity on any matter relating to his/her proposal, he/ she should do so in writing at the address indicated in the appendix to the instructions to consultants. Any effort by an individual consultant to influence the procuring entity's staff in the evaluation of proposals companion proposals or awards of contract may result in the rejection of the individual consultant proposal.
- 2.6.2 The proposal evaluation committee shall have no access to the Financial Proposal, which in any case will remain sealed, until the technical evaluation is concluded or finalized.

2.7 Evaluation of Technical Proposals

2.7.1 The evaluation committee appointed by the procuring entity to evaluate the proposals shall carry out the evaluation of technical proposals following the criteria set out in the terms of reference based on the following points criteria

| | CRITERIA | <u>POINTS</u> |
|-------|---|---------------|
| (i) | Understanding of the task | 10 |
| (ii) | Specific experience of the consultant(s) relevant to the assignment | 20 |
| (iii) | Adequacy of proposed methodology and work plan responding to the TORs | |
| | Technical approach and methodology | 25 |
| | Work Plan | 5 |
| | Organization of the proposals and staffing | 10 |
| (iv) | One on One presentation and pitching of concept | 30 |

- 2.7.2 Any proposal which will be examined and found not to comply with all the requirements for submission of the proposals will be declared non responsive. All the proposals found to have complied with all the requirements for submission of proposal shall be declared responsive by the evaluation committee
- 2.7.3 Each responsive proposal will be given a technical score (ST). Any technical proposal which fails to achieve the total minimum score indicated in the appendix to the information to tenderers shall be rejected at this stage and will not proceed to the next stage of evaluation. The respective financial proposal will be returned to the individual consultant unopened.

2.8 **Opening and Evaluation of Financial Proposals**

- 2.8.1After completion of the evaluation of Technical proposals the procuring entity shall notify the individual consultants whose proposal did not meet the minimum technical score or were declared non responsive to the RFP and terms of reference. The notification will indicate that their financial proposals shall not be opened and will be returned to them un opened after the completion of the selection process and contract award. At the same time, the procuring entity shall simultaneously notify the consultants who have secured the minimum technical score that they have passed the technical qualifications and inform them the date and time set by the procuring entity for opening their financial proposal. They will also be invited to attend the opening ceremony if they wish to do so.
- 2.8.2 The financial proposals shall be opened by the procuring entity. The evaluation committee shall prepare minutes of the opening of the financial proposals.
- 2.8.3 The formulae for determining the financial score (SF) unless an alternative formula is indicated in the appendix to the information to tenderers shall be as follows:

Sf = 100 x fm/f where Sf is the financial score Fm is the lowest fees quoted and

F is the fees of the proposal under consideration.

The lowest fees quoted will be allocated the maximum score of 100

2.8.4 The individual consultants proposals will be ranked according to their combined technical score (st) and financial score (sf) using the weights indicated in the appendix to the instructions to consultants. Unless otherwise stated in the appendix to the instructions to consultants the formulae for the combined scores shall be as follows;

S = ST x T% + SF x P%

Where S, is the total combined scores of technical and financial scores

St is the technical score Sf is the financial score T is the weight given to the technical proposal and P is the weight given to the financial proposal

Note P + T will be equal to 100%

The individual consultant achieving the highest combined technical and financial score will be invited for negotiations.

2.9 Negotiations

2.9.1 Negotiations will be held at the same address indicated in the appendix to the information to consultants. The purpose of the negotiations is for the procuring entity and the individual consultant to reach agreements on all points regarding the assignment and sign a contract.

- 2.9.2 The negotiations will include a discussion on the technical proposals, the proposed methodology and work plan, staff and any suggestions made by the individual consultant to improve the Terms of reference. The agreed work plan and Terms of reference will be incorporated in the description of the service or assignment and form part of the contract.
- 2.9.3 The negotiations will be concluded with a review of the draft contract. If negotiations fail, the procuring entity will invite the individual consultant whose proposal achieved the second highest score to negotiate a contract.

2.10 Award of Contract

- 2.10.1 Notice of Award of contract will be given to the successful evaluated bidder and invite the Successful consultant for negotiations.
- 2.10.2 The contract will be awarded after completion of negotiations. After negotiations are completed the procuring entity will promptly notify the other individual consultants that they were unsuccessful.
- 2.10.3 In the event that the parties do not reach a consensus during negotiations, Kenya Association of Manufacturers is at liberty not to award the contract and open negotiations with any other bidder who participated in the tender process.

2.10.4The selected individual consultant is expected to commence the assignment on the date indicated in the appendix to the information to consultants or any other date agreed with the procuring entity.

2.11 Confidentiality

2.11.1Information relating to evaluation of proposals and recommendations of contract award shall not be disclosed to the individual consultants who submitted the proposal or to other persons not officially concerned with the process, until the winning individual consultant has been notified that he/she has been awarded the contract.

Notes on the preparation of Terms of Reference

The terms of reference are the initial statement to the consultants, of the services to be performed and should therefore be clear and precise and should contain the following sections;

- (a) Background information
- (b) Objectives of the assignment
- (c) Scope of work or services of the assignment
- (d) Training requirements (where

applicable)

(e) Reporting systems and time schedules

(f) Personnel, facilities and other requirements to be provided by the procuring entity and

(g) Terms of payment

Evaluation

Criteria

Offers will be evaluated in three stages, the evaluation will be done in three levels namely:

- a) Mandatory (yes and no basis),
- b) Detailed technical requirement and
- c) Financials.

(a) Mandatory requirement

Each Technical Bid will be assessed for mandatory requirements as shown below on a YES/N basis. If a bid has a NO it will be disqualified.

- a) Financial Proposals
- b) Technical Proposals
- c) Certificate of Incorporation
- d) Pin Certificate
- e) Tax Compliance Certificate (Valid)
- f) CVs
- (b)Then each bid that passes the mandatory requirement will be assessed for detailed technical score on a scale of 1 (minimum) to 100 (maximum) points as per index 2.7.1

1.1. BACKGROUND AND REQUIREMENT

1.1.1. Main Objectives

The main objective of this consultancy is to develop, setup and deploy a centralized online portal to manage the Energy management Award process from application, technical evaluation to judging and information website. The platform will provide information on the following areas:-

- a) General information on KAM, Energy Management and Energy Management Awards
- b) Application portal for EMA awards using the EMA application tool. This portal will have capabilities to upload documents, narrative sections, tables with in-built formulas etc
- c) Online interaction between applicants and KAM

The online EMA site and portal is envisioned to be an important reference point for manufacturers to gain information on energy work at KAM and EMA.

1.1.2. Introduction

Kenya Association of Manufacturers proposes to engage vendors who have proven expertise in System Study, Design, Development, Implementation, Maintenance of Web Portals, Web Enabled Applications & Web Sites using latest available technologies like php, java, .net, open source CMS etc., so that website, web portal, web application development and enhancement can be done at par with the best of industry standards in minimum span of time, and maintenance of the same done to the satisfaction of the users. This tender is to design, development, and deployment of a web-based Energy Management Awards Information and application Platform with all the features that are described here below, commissioning and 1 year comprehensive onsite maintenance of the solution.

The Copyrights and Intellectual Property Rights of all deliverables at various stages will belong to KAM. The bidder shall not be authorized to disclose and use whole or any part of the deliverable without prior written approval of KAM.

1.1.3. SCOPE OF WORK

This tender is for the reputed agencies/firms/Individuals that have proven expertise in System Study, Design, Development, Implementation and Maintenance of Websites / Web Portals / Web enabled applications using latest available technologies like php, java, .net, Open Source CMS.

Security should be one of the important features for the planned portal. Only authorized users should be able to login and access the designated section/subsection of the portal based on their profile. All the users will access the applications, various services and documents only after user authentication and authorization.

The users of this Portal will be the KAM Staff and qualifying applicants and participants to the EMA process and KAM Members. All the other websites/portals and various services will be accessed from internet and intranet.

The proposed portal will be highly available, scalable, flexible, reliable and compliant to industry Standard processes and specifications.

The Bidder shall provide the necessary software, applications, templates and modules necessary for the full deployment of the solution. Broadly the scope of work includes:

- 1) Study, Requirement understanding and Analysis with respect to developing the portal, developing new Website:
 - a. Preliminary study for existing EMA procedures and application forms.
 - b. Requirement gathering through consultation with KAM staff.
- 2) Design, Development, Testing and Deployment and Maintenance of Web based applications and integration with technologies like GIS and social media.
- 3) Provide off-site Warranty, Maintenance, and Technical Support from the date of issue of completion certificate, and Annual maintenance of website/ application with onsite technical support as required for a period of 1 year.

- 4) Ensure that the portal is security audited.
- 5) Identify and execute training requirements for successful execution of project along with preparation of User Manual.
- 6) Creation of manuals and documents for the project executed.

The bidder will undertake the following tasks:

- 1) Provide at least two different design themes to reflect the Graphical User Interphase (GUI) and the navigation of the portal before the implementation.
- 2) Design, develop and implement a creative, interactive, professional EMA web portal which meets/able to meet the objectives outlined above. The Bidder is required to design, develop and implement the modules of phase (I) and phase (II).
- 3) Implement a simple and easy to use content management system (CMS) that will meet the specific needs of this project and not require programming or specialized knowledge to maintain, update, edit, and delete content.
- 4) Design an appropriate open architecture for the portal and implement this mechanism in a secure interactive method.
- 5) Identify the hardware required to operate the portal and the architecture to operate the portal.
- 6) Bidder should setup different environments to enable KAM to:
 - a. Test new content before publishing it
 - b. Test new modules before deploying them
- 7) Provide adequate training to KAM staff to enable them to effectively operate, update and maintain the web portal and all its components or internal links. Training should be tailored for different types of users
 - a. IT Staff : train them how to add new sub-domains/modules/portlet to the portal
 - b. Content Manager: train staff on how to maintain the content by using the content management module and how to transfer content.
- 8) Upload the final web portal files and hand over the rights of the source code, software and databases to KAM.
- 9) Provide full documentation of the portal design/development guide.
 - a. Provide a User manual regarding the operation, update and maintenance of the web portal.
- 10) Provide Content migration plan.
- 11) The provider should commit to a 1 year warranty for and upgrade support of the portal.
- 12) Bidder shall hand over the system passwords of all other root/system administrator passwords of the operating system, database, app servers and all other software to KAM from day 1 of commissioning of the portal.
- 13) Bidder shall provide additional software, customer care and other items required for this EMA portal, to meet the additional growth rate and also to satisfy the SLA.

14) If Bidder needs to upgrade / augment/ require any of the components that is not being provided by them, an advance notice of at least 3 days needs to be given.

1.1.4. Detailed Scope of Work

This section provides indicative scope of work for. However below work is only indicative and would depend upon actual requirements of KAM Users.

- Design, Development, Implementation, Training and Maintenance of Customized EMA web-portal solution, Web Based application/portal solutions / Web designing. Indicative activities include Phase 1: Analysis
 - a. Finalizing the detailed list of activities, scope and duration of each of the activity and detailed project plan
 - b. Detailed discussions with concerned stakeholders to understand the overall objectives of the assignment
 - c. Finalization of Project objectives/Requirements
 - d. Submission of detailed Project Proposal / Plan
 - e. Signoff on detailed project plan, activities, timelines etc. from concernedstakeholder

Phase 2: Design

- a) Detailed Requirement gathering and analysis
- b) Study and analysis tools and include best practices in draft design
- c) Detailed High level and Low level application designs
- d) Information Integration and Consolidation
- e) Client Sign-off for Requirement Analysis
- f) Preparation of Content Structure/ Information Architecture for the website
- g) Vendor shall develop appropriate screen layouts and templates for the user feedback
- h) Approval of prototype (design interface) developed by vendor
- $i) \quad \mbox{Coordination and collection of required content from the concerned stakeholder}$
- j) Approval on the content gathered by KAM ICT Officer.
- k) Comply with website security guidelines.

Phase 3: Develop

- a) Coding / Temporary Demo server
- b) Content Population and content management system
- c) Provide front-end user interface that allows a user, even with limited expertise, to add, modify and remove content from a Web site
- d) Application Development and Unit Testing, Integration Testing, System Testing and Functional Testing
- e) Testing of developed website based upon
 - Compliance to applicable guidelines
 - Assess the user objective achievement etc
- f) Ensure that the portal is Compliant with all standards components
- g) Sign-off by KAM ICT Officer

- h) Modification based upon user feedback
- i) Sign off on developed portal/website KAM ICT directorate

Phase 4: Operation and Maintenance support

- a) Identify and execute training requirements for successful execution of project
- b) Creations of necessary documents and User Manual for training
- c) Support in handover of portal
- d) Support on Training/ Demo on need basis
- e) Warranty Maintenance / Annual Maintenance of website
- f) Designing interface/ mechanism for Mobile based application
- g) Design Development and maintenance of GIS based applications
- h) Design and development of the Electronic form application in Secure & Usable format

Design and Development of Web application Devices having capability to connect directly to Service Provider's central system through laptops, handheld devices, mobile etc. Application should

- a. Provide multichannel support (Internet operated devices, Mobile, etc.).
- b. Have standard interface capabilities (standards like ISO, XML, web services).
- c. Multiple backend systems interfacing capabilities.

1.1.5. FUNCTIONAL REQUIREMENTS AND SPECIFICATIONS

1.1.5.2. Functional overview:

The EMA portal serves as the single stop gateway for KAM stakeholders both internal and external to:

- a) To carry out the following tasks:
 - Give feedback
 - Fill a required form
 - Apply for EMA
 - Register for the awards
 - Upload documents
 - Prefill information
 - Issue notifications
 - Generate reports
 - Inquire about something
 - Interact with other systems/applications
 - Search for any information related to EMA in the portal by using keywords
 - Evaluation mechanism for EMA applicants for judges to score
 - Manage access to the portal based on set registration or application deadlines
- b) For the following information:
 - Rules and regulations/circulars regarding EMA and KAM services
 - Search information in the portal for above by using keywords
 - Information on Existing Websites
 - electronic records management system
 - important documents
 - mails
 - Search information in the portal for above using keywords
 - Document and content management
 - Approval, alerts and notifications

Development of new applications and Link up the portal to existing systems/applications

Bidder shall develop new systems e.g E-directory, helpdesk, report generator including dashboard, online applications through forms system to conduct online surveys, applications, Designing interface/ mechanism for Mobile based application among others.

Bidder will be required to link up the new and the existing applications/systems to the portal.

Search Engine

All static information/ customer records/documents etc. in the portal should be made searchable through a robust search engine. Search content should be filtered based on the access type and role. The search can be done using keywords, date ranges, author etc enabling full document search and not just file names

Document Management

The portal should have a robust document management system. This feature should provide methods and tools for capturing, storing, organizing, analyzing, creating and synthesizing information and expertise; and making available this knowledge within and across communities.

The EMA portal must be architected such that it meets following technical parameters

a) Scalability and Performance - One of the fundamental requirements of EMA portal solution architecture to be provided by the vendor is its ability to scale up as and when new applications and services are added without compromising the performance of the overall solution. The architecture should be proven to be highly scalable and capable of delivering high-performance as and when the transaction volumes increase. It is required that the application and deployment architecture should provide for Scale- Up and Scale out on the Application, Web Servers, Database Servers, Application Integration Servers, and all other solution components.

Following outlines the scalability requirements of the solution:

a. <u>Scalability in terms of the volumes of transactions handled</u>.

This translates to the facility to enhance the hardware, software and network capacities to maintain the performance levels.

b. <u>Scalability in terms of additions of new services, websites and applications</u>.

This translates to seamless and effortless integration with the backend application such that new services and websites can be added with relative ease and maintaining the common look and feel and functionality at the front-end in the portal solution.

c. Scalability in terms of addition of new channels of delivery.

The services are expected to be provided to the users using only Web Interface; the Portal solution should be designed to provide services through other delivery channels like the mobile phones, IPADs, PDAs and other devices.

- b) **Availability** Solution should be designed to remove all single points of failure. The solution should provide the ability to recover from failures, thus protecting against many multiple component failures
- c) Manageability All the components of the portal must be capable of being managed from a remote management station. The following are the technical requirements that Shall provide web based reporting of current and historical system performance parameters. Performance Dece 20 of 41

parameters to be tracked include resource utilization (CPU, Memory, Hard Disk, I/O, and Processes), uptime, throughput, device alerts/failure etc.

a. SLA Monitoring feature shall provide for measuring the SLA parameters including the following:

- i. Response times of the Portal
- ii. Transaction handling capacity of application server in terms of number of concurrent sessions
- iii. Connects and Uptime of services and applications

To achieve the above mentioned architecture the portal needs to be architected in an N- Tiered fashion. The following is a brief technical requirement of the various layers and associated technology.

Client Tier: The client tier shall run in a browser and uses HTML for presentation. The client communicates with the web server tier using HTTP or HTTPS.

Web Server Tier: The web server manages static images and pages and passes client requests from the browsers to the application server tier using HTTP.

Application Server Tier: The application servers are multi-threaded applications with two main areas of logical functionality: Handling client requests and generating HTML as a response, and Managing and supplying object data, including database interaction.

Database Tier: The Portal application suite shall use standard relational database platform for object persistence - all object data shall be stored in the database.

1.1.6.1. EMA portal Technical requirements

| NO | FEATURE | REQUIREMENT |
|----|---|---|
| 1. | Portal | Provides the web interface of the multiple functional |
| | Solution | and exposes the functionality of the service applications like online surveys, e- |
| | | directory, performance management system, etc. to the users through |
| | | Internet |
| 2. | Content Management system | Provides the content creation, management and version control capabilities for the content hosted in the portal. At least 900 concurrent user licenses. |
| 3. | User Registration & Access Control Management System | Provides user management services and service enrolment features to enable all users to register with the portal and to enroll for the services provided in the portal. |
| 4. | Portal | Provide security features like User authentication, authorization, |
| | Security | role based access; rules based access, and should be able to work with |
| | | user information repositories including standard relational databases |
| | | and identity management systems. |
| 5 | Portal | i. Provide consistent look & feel to the users and the standards shall be |
| 5. | Presentation | defined for content, structure and presentation of the portal. |
| | | ii. These standards should be applied and followed throughout the portal. |
| 6. | Metadata Directory | i. Shall provide Metadata directories or indexes for data and about the data available in the proposed solution (e.g.) portal user information, etc. |
| | | ii. The search engine should be integrated with the metadata directory or any other data sources created for the content in the proposed solution, which enables efficient retrieval of the information within the portal and the databases based on the access to the user. |
| 7. | Caching | Provide caching at multiple levels including page/sections in the page, which improves the performance of the portal, in terms of the speed at which content is delivered to users, by caching frequently accessed information. |
| 8. | Content Management | Provide import/export tools as well as APIs so as to easily manage content and documents during staging, back-up, offline usage and for deployment. |
| 9. | Portal Usage MIS | a) Provide interface that manages and creates reports on solution usage and the analysis of user or system behavior. Metrics that are logged shall pertain to portal user network demographics as well as click-through behavior. Web analytics is required. b) Enable these metrics to be analyzed in order to derive user Trends |
| | | c. Shall provide trend analysis facility to record usage behavior patterns providing forward-looking predictions of user interests in the portal. |

| 10. | Interfacing to | i. Include a standards (preferably web services) based | | |
|-----|----------------|---|--|--|
| | Other | Connector for easy integration with the legacy systems. | | |
| | systems | | | |
| 11. | User | i. Operate over the Internet and through all web browsers. | | |
| | Interface and | | | |
| | Usability | ii. The portal must not require the installation of Software on User's | | |
| | | personal computers other than software normally associated with web | | |
| | | browsers' operation. | | |
| | | i. All functional areas must employ a consistent look and feel across all | | |
| | | functions. | | |
| 12. | Other | Must be able to consume the web services from other | | |
| | Features | content sources/portals and vice-versa | | |
| 13. | Retrieved more | Content repositories must be managed, through versioning and version | | |
| | easily. | control, to ensure integrity and authority of the core content. | | |
| | | Access management and privileges for content management | | |
| | | should be secured and advanced authentication technologies such as SSO | | |
| | | shall be used for controlling access to the devolution Portal content | | |
| 14. | Single Sign | SSO services provided by the Portal should enable the users to | | |
| | On(SSO) | authenticate him/herself with the portal only once and should be allowed | | |
| | | to transact with the back end departments seamlessly eliminating the | | |
| | | need for re-authentication. | | |
| | | Unique and secure identification of the users is of utmost concern in | | |
| | | providing online services. | | |
| 15. | Mail | Necessary for Portal administration, and tasks related to customer | | |
| | Gateway | complaints etc. | | |
| 16 | Events | The Website should be able to integrate with an event calendar for the events | | |
| | Management | at KAM. The event management module should allow online event | | |
| | Module | registration and feedback mechanism | | |
| 17 | Image Manager | The portal should have a plugin for managing the uploaded images online and | | |
| | | convert to the required thumbnail sizes with the right layout | | |
| | | | | |
| | | | | |

1.1.6.2. Integration Requirements

| NO. | INTEGRATION REQUIREMENTS |
|-----|---|
| 1. | Portal should enable application level integration of the backend applications for relevant information/document exchange across KAM and Members |
| 2. | Should support both Synchronous and Asynchronous communication (message exchange) with the backend business applications |
| 3. | Interface to the backend applications should be based on open standards |
| 4. | Should handle event services that control workflow between the portal presentation layer and the back end Business applications. |
| 5. | Should provide reliable and secured communication between the portal and the backend applications |
| 6. | Should provide activity/event logging that is archival and accessible for analysis/monitoring. |
| 7. | The solution should support bi-directional data exchange with connected systems and not just unidirectional query capability |
| 8. | The solution should be capable of web services process orchestration and should support straight through as well as long running business processes |
| 9. | The solution should have a highly intuitive graphical development and Deployment environment capable of the following: Enterprise connection wizards to connect to back-end systems (e.g. Databases, web based apps etc.) In a highly visual intuitive manner. Visual drag and drop tools for data mapping and transformation which speeds up development by minimizing hand coding in XML Self-documenting program flow and end-to-end animation to enable nonprogrammers to step through the sequences and actions |

1.1.6.3. User Registration & Access Control Management Requirements

| NO. | FEATURE | REQUIREMENT |
|-----|--|--|
| 1. | User Registration Services | Should enable users and stakeholders to register with the solution using both the User Id/Password and Digital Certificates as required for the services catered through the solution Should enable registration of users with multiple levels of access and authorization privileges |
| 2. | User Authentication Services | i. Support authentication mechanisms including User Id/Password and digital Certificates ii. Once authenticated, users should be allowed to access the services for which he/she has enrolled and for which access has been provided. |
| 3. | User Management, Auditing Reporting | Provide the Security & User administration interface for system administrator to enable management of access rights and privileges of users. User Administration activities should be carried over a secured and encrypted connection. The Passwords and other confidential information related to the users should be stored and transmitted in a secured and encrypted manner. Password Management services must enforce password restrictions, which include the criteria and limitations that can be placed on passwords to increase security. It should provide features such as periodic forced changes, not reusable, hard to guess, mixed characters, etc. Successful/unsuccessful user login requests should be logged for investigative purposes in case of a security breach. |
| 4. | Audit Logs | The auditing and logging should allow secure logging of events in the system. The solution should allow a choice of the persistent storage for the logs (e.g. RDBMS, flat file). The solution should be capable of secure, tamper proof auditing and logging features. |

1.1.6.5. Database System Requirements

| No. | Feature | Requirement |
|-----|---------------------------------------|--|
| | Relational database Requirement | The services for which vendor is developing the EMA portal, a relational database solution should also be deployed for storing the service related information & records. |
| | Support Clustering | Support clustering features exploiting rapidly emerging disk storage and interconnect technologies |
| | Access Control | Allow for server-enforced, fine-grained access controls and also for row level security (in conjunction with application contexts) |
| | Data Encryption | Encryption capabilities while transferring data over networks, and ability to encrypt data stored in the database at the column level |
| | PKI Support | Support PKI based authentication for administrative access to the server |
| | Auditing | Comprehensive auditing for inserts/ deletes/ updates / selects to quickly spot and respond to security breaches. |
| | Comprehensive Storage | The database solution deployed for the solution should also address the storage requirements of other services such as content, transaction and activity logging, etc. |
| | | |

1.1.7. EMA portal Security Requirements

1.1.7.1. Security Policy & Procedures

The vendor is required to develop and document the Security Procedures for the Portal solution provided. These Policies and Procedures encompass the following areas:

- 1. Antivirus Security
- 2. Password Security
- 3. Logical Access Security
- 4. Operating System Security
- 5. Change Management
- 6. Backups
- 7. Security Training
- 8. Data Classification
- 9. Security Incident Management
- 10. Roles & Responsibilities
- 11. Application Security
- 12. Internet Usage
- 13. Encryption

- 14. Third Party Operations
- 15. Information System Audit

1.1.7.2. Security function specification

| NO. | FEATURE | REQUIREMENT |
|-----|--|---|
| 1. | Directory mapping | The solution should provide the ability to map together sources of user information. |
| 2. | Delegated/decentralized administration | The solution must enhance the overall management of security, by providing Officers of KAM an easy way to manage users and their corresponding profile information; while also maintaining the ability to manage at the application level. The centralized control should allow for the web- based maintenance of level controls such as user management, role management and overall administration control. |
| 3. | Browser based Password change service for users with enhanced password management | Features such as minimum password length, minimum number of numeric characters, forced password change with optional grace logins, non- dictionary words, password history etc. |
| 4. | Site, page and content control | The security solution must be able to support a variety of ways to restrict access for specific users to only certain resources at the site, page and control levels of the EMA portal. |
| 5. | Ability to personalize content by user / group | a) The portal solution should offer content personalization functionality to specific member organization. The solution should take the user id provided during authentication and then depending on the resource being accessed, return to the content generation module, or some other dynamic page generator for Portal, data about the user, such as user id, organization name, role/privileges etc. b) This increases security at both the page and content level while reducing coding costs, without this feature, a separate page must be coded for each view that is different by user /group. |
| 6. | Scalable and portable solution | The security solution must provide scalable access services for the KAM Portal solution, including scalability in terms of number of users, user groups, resources, and access control policies. In addition, it must be scalable to legacy and future applications / resources that are attached to the portal. The ability to transport this solution for all future web- enabled services with minimal effort reduces future implementation costs and ensures a structured / proven security environment. |

| 7. | Open and extensible security platform | The solution must provide a robust and customizable security solution that meets the application requirements of Portal. It is hard to anticipate all present and future requirements. An open, extensible architecture and documented application programming interfaces (APIs) enable site developers to customize an access control system to their specific requirements. A platform that will row with additional application deployment and scales as user traffic grows, while providing the highest level of reliability is required. |
|-----|--|---|
| 8. | Secure storage of critical items | The security solution must provide for the ability to securely store critical data within the LDAP or other user directory structure or any user related databases/documents so that database administrators or any unauthorized users do not have access to such items as passwords and other critical documents. |
| 9. | Detailed session management abilities | The security solution must provide for session settings such as timeouts, concurrent sessions and other session control settings |
| 10. | Password management functions | The solution must have the ability to perform password Management functions including: controlled password expirations, minimum password lengths, and enforcement of alphanumeric password standards, password history logging, and user lockout from failed login attempts. |
| 11. | Web Access Filtering | The security solution must examine all traffic to all Services / pages being protected by the solution. All access attempts to the portal or directly to any resource Managed/protected by the portal should be intercepted and examined for authentication and authorization requirements. |
| 12. | Security Monitoring | The security solution must be capable of comprehensive logging of the traffic through the network and applications under its Control. It should be capable of logging unauthorized access attempts in to the network and attempts to login that fail. It should also be capable of notifying appropriate parties of suspicious activity. |
| 13. | Configuration Management | The security solution should provide a way of Controlling changes to configuration, if a major change to configuration is made then a way of recording this change must be provided with the possibility of rolling back through previous configurations in the case of problems. |

| 14. | Other Security Services | a) | All the systems in Portal solution network should run most up- to-date anti-virus software to avoid malicious programs to cause damage to the systems |
|-----|-------------------------|----|---|
| | | b) | Any access to the any solution database should only be via application/portal authorization |
| | | c) | Any administrative access to database should only be via application authorization which should follow authentication of personnel by a suitable mechanism. |

1.1.7.3. Summary of the Combined Features

Productivity and Efficiency

Consistent, easy-to- use interface

The Portal should have a consistent interface which flows from the home page down through every area of the portal. The interface is to be designed specifically to make using the portal very easy. This may include bread crumbing to link to higher levels in the hierarchy; and hovering menus, which allow for an expanded list of links.

| Interactive Help | A help section that will give assistance to all users of the EMA portal. It should be editable by administrator of the EMA portal | |
|--------------------------|--|--|
| Collaboration | The portal should provide tools necessary to facilitate better collaboration. This should include the presence of information to help identify when users are available, or lists to help organize tasks, events, and announcements. | |
| Query Search | The search functionality should be able to query both structured and unstructured content by keywords. Structured data are the databases and transactional systems. Unstructured content includes all of the office documents, proposals, and other information that cannot be easily entered into a database. | |
| Intelligent Search | a) Rank searches based on a number of criteria including popularity, keyword density, ratings. b) Learns from uses this what you were searching for Shows popular searches and best ranked. c) Either immediately search the full EMA portal, or gradually widen the scope. | |
| Attachment Search | Full-text Document Search on demand, including Office (Word, Excel, PowerPoint) and PDFs. | |
| Menu Creator | a) Easily design, create and structure the EMA portal. b) Assign icons to any menu, link or application. c) Quickly create links to websites or third party applications in your portal. d) Assign security to each menu item, if required. | |
| Tooltip Creator | Add hover-over tooltips to menu items and categories, allowing users to discover the content of that area quickly describing the contents to users before access. | |
| EMA portal Administratio | n | |
| Style Manager | a) Create multiple unique styles for different users of the EMA portal. b) High- and Low-contrast style sheets. c) Individuals can select which style sheet is most useful to them, from an approved list. | |

| Personalization | The ability for groups and individual users to customize the way that the information is displayed. Filtering content to the information that a group is interested in and being able to change the location of the information on the screen and be able to display the results in different forms e.g GIS, graphs, charts, excel sheets etc. | |
|------------------------------------|---|--|
| Update Manager | Tightly controls the deployment of software updates. Ensures you have the latest software available to you, while keeping downtime to the absolute minimum. Doesn't overwrite your individual configurations. | |
| Company Manager | Should allow you to model your group structure. | |
| Location Manager | Allow users to record and display the details of your various office locations. | |
| People Manager | Record a massive amount of information about users, including: a) Name b) contacts c) Which style sheet and language they prefer to see the EMA portal d) Register all users by them providing usernames and passwords e) Quick-view of any user's site access with one click. | |
| Transactional Alerts | A messaging system to keep staff notified about anything that a) affects them | |
| Communication and Collaboration | | |
| Image Manager | Images are a vital component for an attractive and successful EMA portal. Interact should allow for a wide range of image management techniques: a) Upload to albums/categories | |
| Site map | At a glance view of the entire EMA portal structure giving users a clearer idea of how the information is structured. | |

| Skills Database Frequently Asked | Create a skills list that's relevant and assign skills to individuals. a) Searchable by skill set, location, department b) User editable c) Qualification levels d) Free text against each skill to describe competency | |
|-------------------------------------|--|--|
| Questions/ | productivity and improves the collective knowledge by allowing | |
| Comments | Allow users to comment on any document or article, creating a Collaborative workspace. | |
| Direct Feedback Collector | Allows users to report errors, omissions or outdated content directly to content owners. Drastically reduce administrative overheads, and improve the quality of the EMA portal content over time. | |
| Rating Manager | Collates user feedback and aggregates it into easily usable reports. Allows content administrators to identify poor or failing content, to | |
| Interact Recommends | Application which intelligently promotes relevant content to users. Works in a similar way to understanding a user's interests and reacting to them intelligently by offering them content that best meets their requirements. | |
| Discussion Board and chats | Encourage open discussion and debate on the Interact Extranet Forums. Any number of discussion areas can be created, to cater for both development- and social-based needs. These forums are designed to strengthen the relationship between Members and the KAM Staff | |
| Digital Dashboard | A dashboard will display key status indicators for several processes and systems on a single screen, giving the user a quick overview of overall status and allowing rapid identification of problems. Digital dashboards offer an opportunity for executives to get a complete view of the overall landscape of the organization, including portions of the organization that cannot be reduced to a set of key performance indicators. | |
| Voting and Polling | Getting the users interact with the EMA portal is vital in driving usage, and asking their opinion on key topics is a great way to do this. The polling tool should allow users to create Homepage polls, Article polls and Recurring polls on any subject. | |

| SMS Messenger and Alerts | a) Text messaging staff is an excellent way to communicate certain types of information. Users can sign up for e-mail notification when the information that they are interested in changes. This can include both key performance indicator changes and changes in information within documents. Alerts shift the model of user interaction from a pull model, where users must go check the portal, to a push model, where they will be informed when | | |
|--|--|--|--|
| | | | |
| Aggregation | Pulling links and content together into a single place helps users know where to go if they are looking for information. Aggregation allows a user to interact with several systems from one single user interface. | | |
| Self service | b) The Portal will be a home for a variety of self-service applications, which allow stakeholders, employees, and others to take care of their own needs. | | |
| Document Watcher | Subscribe to your favorite documents or content areas, receiving immediate notifications if there new or updated content. Allows key users to stay in the loop. | | |
| My Widget | A homepage dashboard for each individual, showing them all the info they need to see to stay up to date. | | |
| Knowledge management | The employees hold the keys to most of the information about projects and programs, the Portal should provide a repository for the information that KAM employees have developed over time through experience. The Portal should help to broaden the usefulness and leverage the knowledge that KAM already possesses and allow for grading of the levels of implementation of programmes and projects for inspiration and improvement. | | |
| Reporting and Business Intelligence | | | |
| Search Analytics | Search and analyses what users of the system are searching for. | | |

| a) Analysis and monitoring tool to analyze user interests. This data must be presented in a user-friendly interface that makes it possible to analyze data in various ways on a daily basis b) Contain downloadable and printable forms, namphlate, or manuals |
|---|
| c) Forms – clients must be able to fill in and return forms online |

1.1.8. PORTAL MONITORING, MANAGEMENT & LOAD TESTING

1.1.8.1. End User Management

- a) Provide real-time visibility into application performance and availability from the end user's perspective.
- b) Help align IT with end-user business processes.
- c) Use active business process emulation, to supply real-time visibility into the user quality of experience.
- d) Assess business impact when problems occur to prioritize IT's response
- e) Triage and isolate problems by integration with Environmental
- f) Detect end-user -process issues before customers are impacted
- g) Reduce the impact of end-user outages and performance issues
- h) Re-use/leverage s process scripts developed for load testing
- i) Drill down to network, server, application tier, and database tier for isolating performance issues.
- j) Diagnostics of composite applications through transaction tracing

1.1.8.2. Service Level Management

- a) Define realistic, quantifiable availability and performance objectives that reflect KAM goals
- b) Measure performance and availability as experienced by end users
- c) Maintain a hierarchical catalog of services mapped to customer service-level agreements (SLA) and to underlying applications and infrastructure
- d) Isolate and resolve performance problems before service-level objectives are breached
- e) Role-based and user-based dash boarding that displays service health and status information to all consumers and providers of services and application functions
- f) Real-time alerts and/or events on SLA breaches.
- g) Facilitate creation of agreed-upon definition of outages.
- h) Flexible handling of planned downtimes for correct reflection on SLA measurements.

1.1.9. SIZING CONSIDERATIONS

| NO | PARAMETER | SIZE |
|-----|---|---|
| 5. | Total number of potential registered users | Initially 800 core registered users (Additional Growth Rate - 40% in first year, 25-30% in second year, 10% in subsequent years Data Growth rate : 20% in first year, 10% in subsequent years) |
| 1. | Total number of potential users (casual browsers) | Initially 200 per day. Additional Growth rate : 40% in first year, 25-30% in second year, 10% in subsequent years) |
| 2. | Number of Intranet Users | Initially 50 registered users. 10-20 concurrent logged in sessions at peak hours (8am to 6 pm) Additional Growth Rate - 40% in first year, 25-30% in second year, 10% in subsequent years Data Growth rate : 20% in first year, 10% in subsequent years |
| 3. | Number of Internet Users (Public) | Initially 200 core registered users (per day) of the registered users will be logged in |
| 4. | How many registered users will be active users on a typical day | 200 (Concurrent users at peak hours) Peak hours: 8 am to 6 pm Additional Growth Rate - 40% in first year, 25-30% in second year, 10% in subsequent years |
| 5. | Search operations as a percentage of total system use: | 25 – 30% |
| 6. | Reserve capacity of all the KAM portal | 30% |
| 7. | Data store | Portal storage: 3 TB (including user profiles) Database storage: 2 TB |
| 8. | Web page Static content : Dynamic content | Static content 40% : Dynamic content 60% |
| 9. | Content management users | 48 administrators |
| 10. | Annual Rate of growth | User traffic: growth of 40% in first year, 25-30% in second year, 10% in subsequent years Data: 20% in first year, 10% in subsequent years |

| 11. | Portal response time | Static pages: < 1 seconds Dynamic pages: < |
|-----|----------------------|--|
| | | 2 seconds (fetched from portal database) |

1.1.11. USER ACCEPTANCE TESTING

1.1.11.1. Acceptance Criteria and Certification

The primary goal of Acceptance Testing & Certification is to ensure that the project meets requirements, standards, specifications and performance prescribed by the RFP and shall include the following acceptance tests which shall be conducted by the nominated officers:

1.1.11.2. Performance

Performance is a key requirement for the Project. The deployed solution is supposed to be a highly scalable solution, which is designed in a scale up/out model at each layer. This will provide the model for future growth. This test process will include the following activities.

- i. Determination of performance metrics
- ii. Designing performance tests.
- iii. Development of workload
- iv. Performance testing and sizing study
- v. Identification of bottlenecks and providing solutions.
- vi. Determining final performance figures.
- vii. Communication of final results to all stakeholders

Final output of this process would be a sizing guide for the solution tested. The sizing guide will document the details of the performance tests, test data, bottlenecks identified, alternate solutions provided, and the final performance data. This document will provide the scalability data of the solution for various loads. This will become the authentic guide for future scale up/out plans of the Project.

1.1.11.3. Availability

The solution should be designed to remove all single points of failure. The solution should provide the ability to recover from failures, thus protecting against many multiple component failures. This test process will include the following activities.

- a. Designing tests for high availability testing
- b. Execution of high-availability tests
- c. Assessment of transaction/data losses in relation to Disaster Recovery system
- d. Communication of final results to all stakeholders

e. High Available clustering at all Web, Application and DB server levels will be targeted at 99.9 % availability.

1.1.11.4. Security

Security certification process will include

- a) Assessment of authentication mechanism provided in the application /components /modules
- b) Assessment of data encryption mechanism.
- c) Assessment of data access privileges, retention periods and archival mechanisms.

Final output of this process would be a comprehensive audit report including all the Network, Server and Application security features incorporated in the portal.

1.1.11.5. Software installation testing

The detailed implementation plan for the supplied software needs to be provided by the vendor and agreed by KAM before installation.

Delivery schedules and detailed test plan for the supplied solution and related software to be given by the vendor including but not limiting to Cluster set up test/ failover test, storage test, networking test etc. This plan has to be agreed by the KAM before installation is done. The detailed testing is to be done on the production environment set up and not for the development and test instance box. Some of the necessary items to be checked are:

- Installation of supplied solution and related software with cluster setup
- Installation test certificate to be signed jointly by KAM and KAM and the vendor.

Without submission of detailed installation document, it shall be considered as incomplete.

1.1.11.6. Application acceptance testing

- a) The applications will be tested with reference to the requirements.
- b) Detailed test plan and use cases for each module and functionality to be prepared and submitted to the KAM and KAM
- c) The use cases should focus on Functionality, load, stability and should cover all the possible scenarios
- d) Test plan and Use case documents should be submitted for each phase in case the solution has a phased go-live approach.
- e) These documents should be jointly agreed by KAM and KAM and vendor before the acceptance testing.
- f) Solution acceptance test certificate would be issued by KAM before we go for Integration performance testing.
- g) The Bidder will get the Portal audited for detailed security penetration

1.1.11.7. Final integration performance testing:

The final acceptance testing will be done post implementation of the software and the portal solution in the production box. Following points are important to note:

- a) The testing would be done for 1 week limiting to the solution performance in terms of response time, uptime, load and security. The detailed performance test plan has to be submitted by the vendor at least 2 weeks before the scheduled testing start date and has to be agreed by KAM. The performance test plan should be in line with the specification in the tender
- b) This testing would be started only after successful completion of User acceptance testing on detailed test/ use cases for the portal that has to be submitted by Vendor
- c) Final acceptance test certificate to be signed jointly by KAM and the vendor.
- d) The date of issue of Final acceptance test certificate shall be termed as date of acceptance.
- e) Post this integration performance testing, the solution can go-live. In case the golive is in phases, all of the above would be done for each phase pre- go-live

1.1.11.8. TRAININGS

The Bidder needs to conduct several trainings for the KAM staff for a smooth transition. The bidder must submit a training plan for all the training areas. The Bidder should be providing the trainings in the following areas:

- a) Administration (database, portal, and other infrastructure)
- b) Performance enhancements, trouble shooting and fine tuning
- c) Solution walk-through with code /programs walk-through –technical and administrators of the portal training
- d) Package configuration for development/ administration for technical staff
- e) User training
- f) Content management users
- g) Workflow approvers/ originators
- h) Document management users

1.1.12. SLA (SERVICE LEVEL AGREEMENT)

The SLAs for the portal will start, after 1 month warranty. To ensure that all the stakeholders discharge their roles and responsibilities in an agreed manner to achieve the common goal, a set of Service Level Metric's are defined for the solution. These are technical, functional and operational requirements are specified in the RFP document to enable all the intending bidders to understand the dimensions of the EMA portal project on a level playing field and propose appropriate solutions and proposals. There are three kinds of SLA the vendor must adhere to

- a) Technical SLA SLA applicable and must be complied by demonstration at the time of acceptance of the solution/Portal.
- b) Operational SLA SLA applicable after the acceptance of the solution/Portal and the entire support period.
- c) Deployment SLA SLA is applicable to the following scope
 - 1. Supply installation and commissioning of all required software for steady functioning of the Portal and to comply with the technical and Operation requirements.
 - 2. Revamping and Migration of the EMA portal and commissioning the website.

The Deployment SLA is applicable from the date of signing the contract to the successful acceptance of the above scope by the Commission of Revenue Allocation and the Kenya Association of Manufacturers.

1.1.15. Portal Application Maintenance support

The Bidder needs to support the portal solution for a period of 1 year.

SECTION IV - TECHNICAL PROPOSAL (TP)

Notes on the Preparation of Technical Proposal

The technical proposal shall be prepared and submitted by the consultants. It shall

contain the following:-

- (a) Submission letter
- (b) Particulars of the consultant including Curriculum vitae (CV) of staff who will be engaged in the project and referrals for other similar assignments done by the consultant.
- (c) Comments and suggestions of the consultant on the terms of reference, personnel, facility and other requirements to be provided by the procuring entity.
- (d) Description of the methodology and work plan for performing the assignment
- (e) Any proposed staff to assist in the assignment
- (f) Consultancy services activities times' schedule.

(to be prepared by the consultant as appropriate)

SECTION V- FINANCIAL PROPOSAL (FP)

Notes on the Preparation Financial Proposal

The financial proposal shall be prepared and submitted by the consultants. It shall contain the following.

- (a) Submission letter indicating total fees
- (b) Summary of costs
- (c) Breakdown of fees per activity
- (d) Breakdown of reimbursable costs/expenses per activity
- (e) Miscellaneous expenses

(to be prepared by the consultant as appropriate)