KENYA TRADE NETWORK AGENCY (KENTRADE)
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TENDER FOR THE PROVISION OF THE PRIMARY AND SECONDARY HOSTING ENVIRONMENT FOR THE TRADE FACILITATION PLATFORM (TFP)

TENDER NO. KTNA/OT/06/2020-2021

October, 2020

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INTRODUCTION

Kenya Trade Network Agency (KENTRADE) is a State Corporation under the National Treasury. The mandate of KENTRADE is to implement, operationalize and manage the Kenya National Electronic Single Window System (Kenya TradeNet System) and to facilitate Trade.

KENTRADE requires a hosting environment for its Upgraded System - **The Trade Facilitation Platform (TFP).** The hosting environment providers shall supply and set up hardware at their selected Data Centers to meet the hosting requirements of the Trade Facilitation Platform (TFP) Application. KENTRADE shall only provide supporting software and the TFP Application. As such, all servers and other components on the Hardware Bill of Materials MUST be catered for in the hosting Data Center.

The selected solution provider shall provide at least a **Tier III Data** to guarantee uptime of at least **99.999%.**

Details of the requirements are as described in Section VI of this tender document.

SECTION I - INVITATION TO TENDER

October 13, 2020

TENDER NO. KTNA/OT/06/2020-2021

TENDER FOR THE PROVISION OF THE PRIMARY AND SECONDARY HOSTING ENVIRONMENT FOR THE TRADE FACILITATION PLATFORM (TFP)

1.1 The Kenya Trade Network Agency invites sealed tenders from eligible candidates for the provision of the Primary and Secondary Hosting Environment for the Trade Facilitation Platform (TFP)

1.2 Interested eligible candidates may view and download the document **free of charge** from the Government Tenders Portal (PPIP) or from the KenTrade website on the following link: - **http://www.kentrade.go.ke/index.php/procurement/tenders,** or purchase the documents at a cost of **Kshs. 1000.00** from the procurement office at Embankment Plaza (1st Floor), Upper Hill.

Bidders who download the tender document from the Government Portal- shall be required to email their detailed contact information to procurement@kentrade.go.ke for future communication.

1.3 Candidates may also obtain further information at the Kenya Trade Network Agency offices (Procurement Office) at Embankment Plaza, Upper Hill, (First Floor) at the address given below.

1.4 Completed Tenders should be submitted accompanied by a Tender Security issued by a bank or a Financial Institution approved by the Public Procurement Regulatory Authority, in the amount of Kenya Shillings Seven Hundred Thousand only (**Kshs. 700,000.00).** The tender security should be valid for one Hundred and twenty (120) days from the closing date of the tender and should be received on, or before **Thursday, October 29, 2020 at 1000hours.** Failure to provide tender security will lead to disqualification of the tender.

1.5 Prices quoted shall be inclusive of duty and other taxes and shall remain valid for **150 days** from the closing date of the tenders.

1.6 The completed tender documents, shall be submitted in two copies, marked as: -

"**ORIGINAL TENDER**" and "**COPY OF TENDER**".

and shall be placed in one outer envelope and sealed. This outer envelope shall bear the Tender number and name, and marked "**DO NOT OPEN BEFORE Thursday, October 29, 2020 at 1000hours,** and shall be addressed to: -

The Chief Executive Officer,
Kenya Trade Network Agency,
Embankment Plaza, Upper Hill,
P.O Box 36943-00200
NAIROBI

1.7 All Tender Documents **MUST** be submitted in **HARD COPY** and should be deposited in the Tender Box located at the reception area of KENTRADE Offices at Embankment Plaza (First Floor). Documents submitted online shall **NOT** be acknowledged.

1.8 Tenders will be opened immediately after the closing time in the presence of tenderers representatives who choose to attend the opening in the boardroom on first floor, Embankment Plaza.

There will be a virtual bidders Conference on Monday, October 19, 2020 at 1000hours. ALL Bidders are encouraged to attend.

CHIEF EXECUTIVE OFFICER

SECTION II – INSTRUCTIONS TO TENDERERS

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SECTION II INSTRUCTIONS TO TENDERERS

2.1 Eligible tenderers

2.1.1. This Invitation to tender is open to all tenderers eligible as described in the instructions to tenderers. Successful tenderers shall provide the services for the stipulated duration from the **date** of commencement (hereinafter referred to as the term) specified in the tender documents.

2.1.2. The procuring entity's employees, committee members, board members and their relative (spouse and children) are not eligible to participate in the tender unless where specially allowed under section 131 of the Act.

2.1.3. Tenderers shall provide the qualification information statement that the tenderer (including all members, of a joint venture and subcontractors) is not associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Procuring entity to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the services under this Invitation for tenders.

2.1.4. Tenderers involved in corrupt or fraudulent practices or debarred from participating in public procurement shall not be eligible.

2.2 Cost of tendering

2.2.1 The Tenderer shall bear all costs associated with the preparation and submission of its tender, and the procuring entity, will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

2.2.2 The price to be charged for the tender document shall not exceed Kshs.1,000/=

2.2.3 The procuring entity shall allow the tenderer to review the tender document free of charge before purchase.

2.3 Contents of tender documents

2.3.1. The tender document comprises of the documents listed below and addenda issued in accordance with clause 6 of these instructions to tenders

i) Instructions to tenderers
ii) General Conditions of Contract
iii) Special Conditions of Contract
iv) Schedule of Requirements
v) Details of service
vi) Form of tender
vii) Price schedules
viii) Contract form
ix) Confidential business questionnaire form
x) Tender security form
xi) Performance security form

xii) Principal's or manufacturers authorization form
xiii) Declaration form

2.3.2. The Tenderer is expected to examine all instructions, forms, terms, and specifications in the tender documents. Failure to furnish all information required by the tender documents or to submit a tender not substantially responsive to the tender documents in every respect will be at the tenderers risk and may result in the rejection of its tender.

2.4 Clarification of Documents

2.4.1. A prospective candidate making inquiries of the tender document may notify the Procuring entity in writing or by post, fax or email at the entity's address indicated in the Invitation for tenders. The Procuring entity will respond in writing to any request for clarification of the tender documents, which it receives no later than seven (7) days prior to the deadline for the submission of tenders, prescribed by the procuring entity. Written copies of the Procuring entities response (including an explanation of the query but without identifying the source of inquiry) will be sent to all prospective tenderers who have received the tender documents"

2.4.2. The procuring entity shall reply to any clarifications sought by the tenderer within 3 days of receiving the request to enable the tenderer to make timely submission of its tender

2.5 Amendment of documents

2.5.1. At any time prior to the deadline for submission of tenders, the Procuring entity, for any reason, whether at its own initiative or in response to a clarification requested by a prospective tenderer, may modify the tender documents by issuing an addendum.

2.5.2. All prospective tenderers who have obtained the tender documents will be notified of the amendment by post, fax or email and such amendment will be binding on them.

2.5.3. In order to allow prospective tenderers reasonable time in which to take the amendment into account in preparing their tenders, the Procuring entity, at its discretion, may extend the deadline for the submission of tenders.

2.6 Language of tender

2.6.1. The tender prepared by the tenderer, as well as all correspondence and documents relating to the tender exchanged by the tenderer and the Procuring entity, shall be written in English language. Any printed literature furnished by the tenderer may be written in another language provided they are accompanied by an accurate English translation of the relevant passages in which case, for purposes of interpretation of the tender, the English translation shall govern.

2.7 **Documents Comprising the Tender**

The tender prepared by the tenderer shall comprise the following components:

(a) A Tender Form and a Price Schedule completed in accordance with paragraph 9, 10 and 11 below.

(b) Documentary evidence established in accordance with Clause 2.11 that the tenderer is eligible to tender and is qualified to perform the contract if its tender is accepted;

© Tender security furnished is in accordance with Clause 2.12
(d)Confidential business questionnaire.

2.8 **Form of Tender**

2.8.1 The tenderers shall complete the Form of Tender and the appropriate Price Schedule furnished in the tender documents, indicating the services to be performed.

2.9 **Tender Prices**

2.9.1 The tenderer shall indicate on the Price schedule the unit prices where applicable and total tender prices of the services it proposes to provide under the contract.

2.9.2 Prices indicated on the Price Schedule shall be the cost of the services quoted including all customs duties and VAT and other taxes payable:

2.9.3 Prices quoted **by** the tenderer shall remain fixed during the term of the contract unless otherwise agreed by the parties. A tender submitted with an adjustable price quotation will be treated as non-responsive and will be rejected, pursuant to paragraph 2.22.

2.9.4 Contract price variations shall not be allowed for contracts not exceeding one year (12 months)

2.9.5 Where contract price variation is allowed, the variation shall not exceed 25% of the original contract price.

2.9.6 Price variation requests shall be processed by the procuring entity within 30 days of receiving the request.

2.10 **Tender Currencies**

2.10.1 Prices shall be quoted in Kenya Shillings unless otherwise specified in the appendix to in Instructions to Tenderers

2.11 Tenderers Eligibility and Qualifications.

2.11.1 Pursuant to Clause 2.1 the tenderer shall furnish, as part of its tender, documents establishing the tenderers eligibility to tender and its qualifications to perform the contract if its tender is accepted.

2.11.2 The documentary evidence of the tenderers qualifications to perform the contract if its tender is accepted shall establish to the Procuring entity's satisfaction that the tenderer has the financial and technical capability necessary to perform the contract.

2.12 **Tender Security**

2.12.1 The tenderer shall furnish, as part of its tender, a tender security for the amount and form specified in the Invitation to tender.

2.12.2 The tender security shall be in the amount not exceeding 2 per cent of the tender price.

2.12.2 The tender security is required to protect the Procuring entity against the risk of Tenderer's conduct which would warrant the security's forfeiture, pursuant to paragraph 2.12.7

2.12.3 The tender security shall be denominated in a Kenya Shillings or in another freely convertible currency and shall be in the form of:

a) A bank guarantee.

b) Cash.

c) Such insurance guarantee approved by the Authority.

d) Letter of credit

2.12.4 Any tender not secured in accordance with paragraph 2.12.1 and 2.12.3 will be rejected by the Procuring entity as non-responsive, pursuant to paragraph 2.20

2.12.5 Unsuccessful tenderer's security will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of tender validity prescribed by the procuring entity.

2.12.6 The successful tenderer's tender security will be discharged upon the tenderer signing the contract, pursuant to paragraph 2.29, and furnishing the performance security, pursuant to paragraph 2.30.

2.12.7 The tender security may be forfeited:

(a) If a tenderer **withdraws** its tender **during** the period of tender validity specified by the procuring entity on the
Tender Form; or

(b) In the case of a successful tenderer, *if* the tenderer fails:

(i) to sign the contract in accordance with paragraph 30
or
(ii) to furnish performance security in accordance with paragraph 31.

© If the tenderer rejects, correction of an error in the tender.

2.13 Validity of Tenders

2.13.1 Tenders shall remain valid for 150 days or as specified in the invitation to tender after date of tender opening prescribed by the Procuring entity, pursuant to paragraph 2.18. A tender valid for a shorter period shall be rejected by the Procuring entity as nonresponsive.

2.13.2 In exceptional circumstances, the Procuring entity may solicit the Tenderer's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The tender security provided under paragraph 2.12 shall also be suitably extended. A tenderer may refuse the request without forfeiting its tender security. A tenderer granting the request will not be required nor permitted to modify its tender.

2.14 Format and Signing of Tender

2.14.1 The tenderer shall prepare two copies of the tender, clearly / marking each "ORIGINAL TENDER" and "COPY OF TENDER," as appropriate. In the event of any discrepancy between them, the original shall govern.

2.14.2 The original and all copies of the tender shall be typed or written in indelible ink and shall be signed by the tenderer or a person or persons duly authorized to bind the tenderer to the contract. All pages of the tender, except for unamended printed literature, shall be initialed by the person or persons signing the tender.

2.14.3 The tender shall have no interlineations, erasures, or overwriting except as necessary to correct errors made by the tenderer, in which case such corrections shall be initialed by the person or persons signing the tender.

2.15 Sealing and Marking of Tenders

2.15.1 The tenderer shall seal the original and each copy of the tender in separate envelopes, duly marking the envelopes as "ORIGINAL" and "COPY." The envelopes shall then be sealed in an outer envelope. The inner and outer envelopes shall:

(a) be addressed to the Procuring entity at the address given in the invitation to tender

(b) bear, tender number and name in the invitation to tender and the words: "DO NOT OPEN BEFORE **Thursday, October 29, 2020 at 1000hours.**

2.15.3 The inner envelopes shall also indicate the name and address of the tenderer to enable the tender to be returned unopened in case it is declared "late". —

2.15.4 If the outer envelope is not sealed and marked as required by paragraph 2.15.2, the Procuring entity will assume no responsibility for the tender's misplacement or premature
opening.

2.16 Deadline for Submission of Tenders

2.16.1 Tenders must be received by the Procuring entity at the address specified under paragraph 2.15.2 no later than (*day, date and time of closing*)

2.16.2 The procuring entity may, at its discretion, extend this deadline for the submission of tenders by amending the tender documents in accordance with paragraph 6, in which case all rights and obligations of the procuring entity and candidates previously subject to the deadline will thereafter be subject to the deadline as extended.

2.16.3 Bulky tenders which will not fit in the tender box shall be received by the procuring entity as provided for in the appendix.

2.17 Modification and withdrawal of tenders

2.17.1 The tenderer may modify or withdraw its tender after the tender's submission, provided that written notice of the modification, including substitution or withdrawal of the tender's is received by the procuring entity prior to the deadline prescribed for the submission of tenders.

2.17.2 The Tenderer's modification or withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of paragraph 2.15. A withdrawal notice may also be sent by cable, but followed by a signed confirmation copy, postmarked not later than the deadline for submission of tenders.

2.17.3 No tender may be modified after the deadline for submission of tenders.

2.17.4 No tender may be withdrawn in the interval between the deadline for submission of tenders and the expiration of the period of tender validity specified by the tenderer on the Tender Form. Withdrawal of a tender during this interval may result in the Tenderer's forfeiture of its tender security, pursuant to paragraph 2.12.7.

2.17.5 The procuring entity may at any time terminate procurement proceedings before contract award and shall not be liable to any person for the termination.

2.17.6 The procuring entity shall give prompt notice of the termination to the tenderers and on request give its reasons for termination within 14 days of receiving the request from any tenderer.

2.18 Opening of Tenders

2.18.1 The Procuring entity will open all tenders in the presence of tenderers' representatives who choose to attend, at **1000hours on Thursday, October 29, 2020** and in the location specified in the invitation to tender. The tenderers' representatives who are present shall sign a register evidencing their attendance.

2.18.3 The tenderers' names, tender modifications or withdrawals, tender prices, discounts, and the presence or absence of requisite tender security and such other details as the Procuring Entity, at its discretion, may consider appropriate, will be announced at the opening.

2.18.4 The procuring entity will prepare minutes of the tender opening which will be submitted to the tenderers that signed the tender opening register and will have made the request.

2.19 Clarification of tenders

2.19.1 To assist in the examination, evaluation and comparison of tenders the procuring entity may at its discretion, ask the tenderer for a clarification of its tender. The request for clarification and the response shall be in writing, and no change in the prices or substance shall be sought, offered, or permitted.

2.19.2 Any effort by the tenderer to influence the procuring entity in the procuring entity's tender evaluation, tender comparison or contract award decisions may result in the rejection of the tenderers tender.

Comparison or contract award decisions may result in the rejection of the tenderers' tender.

2.20 Preliminary Examination and Responsiveness

2.20.1 The Procuring entity will examine the tenders to determine whether they are complete, whether any computational errors have been made, whether required securities have been furnished whether the documents have been properly signed, and whether the tenders are generally in order.

2.20.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If the candidate does not accept the correction of the errors, its tender will be rejected, and its tender security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail.

2.20.3 The Procuring entity may waive any minor informality or nonconformity or irregularity in a tender which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any tenderer.

2.20.4 Prior to the detailed evaluation, pursuant to paragraph 23, the Procuring entity will determine the substantial responsiveness of each tender to the tender documents. For purposes of these paragraphs, a substantially responsive tender is one which conforms to all the terms and conditions of the tender documents without material deviations. The Procuring entity's determination of a tender's responsiveness is to be based on the contents of the tender itself without recourse to extrinsic evidence.

2.20.5 If a tender is not substantially responsive, it will be rejected by the Procuring entity and may not subsequently be made responsive by the tenderer by correction of the nonconformity.

2.21 Conversion to a single currency

2.21.1 Where other currencies are used, the procuring entity will convert those currencies to Kenya shillings using the selling exchange rate on the date of tender closing provided by the central bank of Kenya.

2.22 Evaluation and comparison of tenders.

2.22.1 The procuring entity will evaluate and compare the tenders which have been determined to be substantially responsive, pursuant to paragraph 2.20

2.22.2 The comparison shall be of the price including all costs as well as duties and taxes payable on all the materials to be used in the provision of the services.

2.22.3 The Procuring entity's evaluation of a tender will take into account, in addition to the tender price, the following factors, in the manner and to the extent indicated in paragraph 2.22.4 and in the technical specifications:

(a) operational plan proposed in the tender;

(b) deviations in payment schedule from that specified in the Special Conditions of Contract;

2.22.4 Pursuant to paragraph 22.3 the following evaluation methods will be applied:
(a) ***Operational Plan.***

The Procuring entity requires that the services under the Invitation for Tenders shall be performed at the time specified in the Schedule of Requirements. Tenders offering to perform longer than the procuring entity's required delivery time will be treated as non-responsive and rejected.

(b) ***Deviation in payment schedule.***

Tenderers shall state their tender price for the payment on a schedule outlined in the special conditions of contract. Tenders will be evaluated on the basis of this base price.

Tenderers are, however, permitted to state an alternative payment schedule and indicate the reduction in tender price they wish to offer for such alternative payment schedule. The Procuring entity may consider the alternative payment schedule offered by the selected tenderer.

2.22.5 The tender evaluation committee shall evaluate the tender within 30 days from the date of opening the tender.

2.22.6 To qualify for contract awards, the tenderer shall have the following:-

(a) Necessary qualifications, capability experience, services, equipment and facilities to provide what is being procured.

(b) Legal capacity to enter into a contract for procurement

(c) Shall not be insolvent, in receivership, bankrupt or in the process of being wound up and is not the subject of legal proceedings relating to the foregoing

(d) Shall not be debarred from participating in public procurement.

2.23. **Contacting the procuring entity**

2.23.1 Subject to paragraph 2.19, no tenderer shall contact the procuring entity on any matter relating to its tender, from the time of the tender opening to the time the contract is awarded.

2.23.2 Any effort by a tenderer to influence the procuring entity in its decisions on tender evaluation tender comparison or contract award may result in the rejection of the tenderers tender.

2.24 Award of Contract

a) **Post qualification**

2.24.1 In the absence of pre-qualification, the Procuring entity will determine to its satisfaction whether the tenderer that is selected as having submitted the lowest evaluated responsive tender is qualified to perform the contract satisfactorily.

2.24.2 The determination will take into account the tenderer's financial and technical capabilities. It will be based upon an examination of the documentary evidence of the tenderers qualifications submitted by the tenderer, pursuant to paragraph 2.1.2, as well as such other information as the Procuring entity deems necessary and appropriate.

2.24.3 An affirmative determination will be a prerequisite for award of the contract to the tenderer. A negative determination will result in rejection of the Tenderer's tender, in which event the Procuring entity will proceed to the next lowest evaluated tender to make a similar determination of that Tenderer's capabilities to perform

satisfactorily.

b) **Award Criteria**

2.24.3 Subject to paragraph 2.29 the Procuring entity will award the contract to the successful tenderer whose tender has been determined to be substantially responsive and has been determined to be the lowest evaluated tender, provided further that the tenderer is determined to be qualified to perform the contract satisfactorily.

2.24.4 The procuring entity reserves the right to accept or reject any tender and to annul the tendering process and reject all tenders at any time prior to contract award, without thereby incurring any liability to the affected tenderer or tenderers or any obligation to inform the affected tenderer or tenderers of the grounds for the procuring entity's action. If the procuring entity determines that none of the tenderers is responsive; the procuring entity shall notify each tenderer who submitted a tender.

2.24.5 A tenderer who gives false information in the tender document about its qualification or who refuses to enter into a contract after notification of contract award shall be considered for debarment from participating in future public procurement.

2.25 **Notification of award**

2.25.1 Prior to the expiration of the period of tender validity, the Procuring entity will notify the successful tenderer in writing that its tender has been accepted.

2.25.2 The notification of award will signify the formation of the Contract subject to the signing of the contract between the tenderer and the procuring entity pursuant to clause 2.29. Simultaneously the other tenderers shall be notified that their tenders have not been successful.

2.25.3 Upon the successful Tenderer's furnishing of the performance security pursuant to paragraph 31, the Procuring entity will promptly notify each unsuccessful Tenderer and will discharge its tender security, pursuant to paragraph 2.12

2.26 **Signing of Contract**

2.26.1 At the same time as the Procuring entity notifies the successful tenderer that its tender has been accepted, the Procuring entity will simultaneously inform the other tenderers that their tenders have not been successful.

2.26.2 Within fourteen (14) days of receipt of the Contract Form, the successful tenderer shall sign and date the contract and return **it** to the Procuring entity.

2.26.3 The parties to the contract shall have it signed within 30 days from the date of notification of contract award unless there is an administrative review request.

2.27 Performance Security

2.27.1 Within thirty (30) days of the receipt of notification of award from the Procuring entity, the successful tenderer shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the tender documents, or in another form acceptable to the Procuring entity.

2.27.2 Failure of the successful tenderer to comply with the requirement of paragraph 2.29 or paragraph 2.30.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the tender security, in which event the Procuring entity may make the award to the next lowest evaluated or call for new tenders.

2.28 Corrupt or Fraudulent Practices

2.28.1 The Procuring entity requires that tenderers observe the highest standard of ethics during the procurement process and execution of contracts. A tenderer shall sign a declaration that he has not and will not be involved in corrupt or fraudulent practices.

2.28.2 The procuring entity will reject a proposal for award if it determines that the tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

2.28.3 Further, a tenderer who is found to have indulged in corrupt or fraudulent practices risks being debarred from participating in public procurement in Kenya.

APPENDIX TO INSTRUCTIONS TO THE TENDERERS

Appendix on the instructions to Tenderers

The following information regarding the particulars of the tender shall complement supplement or amend the provisions of the instructions to tenderers. Wherever there is a conflict between the provision of the instructions to tenderers and the provisions of the appendix, the provisions of the appendix herein shall prevail over those of the instructions to tenderers

INSTRUCTIONS TO TENDERERS REFERENCE	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
2.1	All bidders with documentation to prove eligibility as depicted in clause 2.11 herein.
2.10	Prices shall be quoted in Kenya Shillings
2.11	• Manufacturer authorization: Separate Manufacturer Authorizations to be presented for (For Oracle, Network, Servers, Storage and Load Balancers, web Application Firewall) • Current ICTA -1 Certificate – 1. Information Security AND 2. IT Infrastructure • Current NCA-4 and above – Electrical Engineering -Structured Cabling and Telcom's • Written proof of ownership of Data Centre OR Partnership with at least Tier III Data Centre for a period of at least 6 Years. (Site visits to the Data Centers will form part of the tender evaluation).
2.12	The tender security shall be **Kshs. 700,000.00** (Kshs. Seven Hundred Thousand only) in the form of a bank guarantee from a reputable bank or a Financial Institution approved by PPRA
2.18	The closing date for the tender shall be **Thursday, October 29, 2020** at **1000hours**
2.24	**5.2 EVALUATION CRITERIA** **A. PRELIMINARY EVALUATION/MANDATORY REQUIREMENTS** Bidders MUST comply with all mandatory requirements to be considered for Technical evaluation. Bidders who fail to meet all mandatory requirements will be considered **NON-RESPONSIVE**. i. Form of Tender dully filled and signed.

ii. Power of Attorney.

iii. Verifiable Statutory documents

- Registration certificate/ Certificate of incorporation
- Valid Tax Compliance Certificate (TCC).
- Valid trade license.
- Form CR 12

iv. Confidential Business questionnaire duly filled and signed

v. Tender Security (indicate values and duration).

vi. Manufacturer authorization: Separate Manufacturer Authorizations to be presented for (For Oracle, Network, Servers, Storage and Load Balancers, web Application Firewall)

vii. Current ICTA -I Certificate – I. Information Security AND 2. IT Infrastructure

viii. Current NCA-4 and above – Electrical Engineering -Structured Cabling and Telcom's

ix. Valid Communication Authority of Kenya (CA) certificate

x. Audited financial accounts for the past three years (This shall form part of the technical evaluation).

xi. Bidders must provide written proof of ownership of Data Centre OR Partnership with at least Tier III Data Centre for a period of at least 6 Years. (Site visits to the Data Centers will form part of the tender evaluation).

xii. Bidders **Must** paginate their documents

Bidders MUST comply with all mandatory requirements to be considered for the next evaluation stage (Technical evaluation).

B. TECHNICAL REQUIREMENTS

COMPLIANCE TO TECHNICAL SPECIFICATIONS

The technical requirements for the equipment are detailed below and bidders are expected to respond on **a clause by clause** basis stating clearly how their solution meets the requirements. Responses to compliance on technical specifications in any other way other than clause by clause will be treated as **NON-RESPONSIVE**. Responses such as **"complied", "possible to do", "meets"** will be considered as **NON-**

RESPONSIVE and will **NOT** be awarded any scores. Bidders are expected to clearly present their solution in the tables provided supported by appropriate brochures of the proposed solution. All clauses **MUST** be responded to.

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
WEB and APPLICATION SERVERS					
1	To host the following Environments - WEB/SFTP/COMMS Application MQ / Directory Database Back-Up Virtualization ADMIN and OPCENTRE/ SYSLOG and Resource Monitoring.	-(Intel Server), Dual Socket Intel Xeon Gold 5218 Processor 16c 2.30 - 3.90 GHz 22 MB 125W DDR4 2666 Processor 32 cores per server. -Two (2) 960 GB SSD internal disk for OS. 256 GB Memory per Server Standard manageability interface. -Compute LAN I/O Modules MUST support 25G SFP28. -Storage connectivity MUST support 16Gbps minimum. -The Server system must fit in the provided rack. -Redundant Power Supply -Warranty and Support 6 Years.	**6**	**M**	
DATABASE SERVERS					
2	To host 2-Data base Servers and Trial Environment	Processor -Two (2) * Intel Xeon Silver 4215 2.5G, 8C/16T, 9.6GT/s, 11M Cache, Turbo, HT (85W) DDR4-2400 Hypervisor – Oracle OVM or equivalent Hypervisor Certified to handle Oracle Hard Partitioning.	**3**	**M**	
		-Two (2) 960 GB SSD internal disk for OS. 640 GB Memory per Server Standard manageability interface. - 2 x Compute LAN I/O Modules MUST support 25G SFP28. -Storage connectivity MUST support 2 x 16Gbps minimum. -The Server system must fit in the provided rack. -Redundant Power Supply -Warranty and Support 6 Years.			
NETWORK & SOFTWARE SWITCHES					

	4	**Software Defined Networking (SDN) Switches, Software Defined Storage (SDS) with Network Operating System to provide: -**				
		i. Link Aggregation Switch.	-Minimum 32-port 40/100G SFP+/QSFP28 ports. -Should have at least One(1) USB Port. -Supports a minimum of 3.2 Tbps of bandwidth. -Fans: hot-swappable five(5) redundant fans. -Operating Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F). -Packet Buffer Minimum of 16 MB Supports Minimum of 3967 VLANs Minimum of RJ-45 100/1000BASE-T management port. Compatible with capable controllers and applications that take full advantage of automated, policy-based, systems-management approach Supports VLAN Hot-swappable redundant fans Operating Temperature: 0°C to 45°C (32°F to 113°F) Packet Buffer Size Minimum of 16 MB 6 Year support and Warranty	**2**	**M**	
		ii. Corporate SDN Fabric Core Switching Capability Server Access Switching Capability DMZ Server Access Switching Capability	-48-Port 25G SFP28 + 8x100G QSFP+ uplink switch, -Should have at Least One USB Port -Supports a minimum of 1.28 Tbps of bandwidth. -Fans: hot-swappable 5 redundant fans Operating Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F) -Packet Buffer Minimum of 16 MB -Minimum of RJ-45 100/1000BASE-T management port. -Compatible with capable controllers and applications that take full advantage of automated, policy-based, systems-management approach. -Supports VLAN. -Hot-swappable redundant fans Operating	**2**	**M**	

			Temperature: 0°C to 45°C (32°F to 113°F) Packet Buffer Size Minimum of 16 MB. -6 Year support and Warranty.			
		iii. Storage Software Defined Storage (SDS) Fabric	-48-Port 25G SFP28 + 8x100G QSFP+ uplink switch. -Should have at Least One USB Port Supports a minimum of 1.28 Tbps of bandwidth. -Fans: hot-swappable 5 redundant fans Operating Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F). -Packet Buffer Minimum of 16 MB. -Minimum of RJ-45 100/1000BASE-T management port. -Compatible with capable controllers and applications that take full advantage of automated, policy-based, systems-management approach. -Supports VLAN. -Hot-swappable redundant fans Operating Temperature: 0°C to 45°C (32°F to 113°F) Packet Buffer Size Minimum of 16 MB -6 Year support and Warranty	**2**	**M**	
	FIREWALLS					
	5	Tier 1 Firewall (Must be Different OEM from DC Firewall).	2x GbE RJ45 or 2x 10G SFP+ Management Ports. 8x NIC Module Slots, with Support for 1/10/40/100G Copper/Fiber Interface. 2x 3.5" or 2x 2.5" External Bays, 2x USB 3.0, 1x RJ45 & 1x Mini USB Consoles 1+1 ATX redundant PSUs and 4x Individual Hot-swappable Cooling Fans, 1x PCI-E*16 FH/HL Geolocation IDS/IPS Intrusion detection or prevention systems Sandboxing Web proxy and URL checking Reverse proxy	**2**	**M**	

			Web application firewall. Threat intelligence. SFP Modules 25-100 g (where applicable. Quantities aligned to solution) 6 yrs warranty & Support			
	DC Firewall (Must be different OEM from Tier 1 Firewall).	2x GbE RJ45 or 2x 10G SFP+ Management Ports 8x NIC Module Slots, with Support for 1/10/40/100G Copper/Fiber Interface 2x 3.5" or 2x 2.5" External Bays, 2x USB 3.0, 1x RJ45 & 1x Mini USB Consoles 1+1 ATX redundant PSUs and 4x Individual Hot-swappable Cooling Fans, 1x PCI-E*16 FH/HL Geolocation IDS/IPS Intrusion detection or prevention systems Sandboxing Web proxy and URL checking Reverse proxy Web application firewall Threat intelligence SFP Modules 25G-100G (Quantities aligned to proposed solution) 6yrs Warranty & support	**2**	**M**	
LOAD BALANCERS AND WEB APPLICATION FIREWALLS						
6		-Virtual Machine Based. -L4/7 Load Balancing for all TCP/UDP Server and Application health monitoring Encryption acceleration with FIPS 140-2 support. -Caching, compression, TCP multiplexing, SSL offload. -Works with most Hypervisors and IaaS Cloud Platforms. -Full Rest API, Automation Enabled Authorization, Authentication & Single Sign-On. -Web Application Firewall and IPS – with Daily threat updates. -GSLB – Global Traffic Management	**2**		

			Central Management, provisioning & performance insights. -Monitoring, reporting and AI-enabled proactive Remediation. -7x24 Premium Live Support. 6yrs Warranty & support			
COLLOCATION DATACENTRES - PRODUCTION SITE						
7	Collocation racks.	Must be provided by the DC. In case where the DC does not provide the racks, bidder must provide for rack to house the equipment.			**M**	
	Level of Uptime.	99.999%.				
	DC TIER.	At least **TIER III** Certification: Provide evidence of Certificate OR Uptime Institute Approvals prior to certification				
	Data Center certified for **ISO-27001.** Or in the process of getting certified	Provide Evidence of certification OR Processes procedures that conform to ISO/IEC/27001:2013				
	Data Center **MUST** be within 30 KM from CBD Nairobi.	Please share location details/Google Maps link.				
	Distance between proposed DCs.	Proposed Primary and DR data centres must be a minimum of At least 10 Kms apart.				
	DC Access	KENTRADE approved and authorized IT Staff and Support Partners must be able to access the DC Site 24X7X365, without prior notification in case of emergencies. However, the DC MUST have Authorization and Authentication of Access with KenTrade approvals for access to environment				
	DC must be Carrier Neutral.	Provide Evidence. Listing all ISP available at the DC.				
	Data Centre Facility	Data Center MUST not be in a multi-tenant building				

	Data Centre Facility Insurance	The Data center to Provide Evidence of Insurance of the Facility and details of cover			
	Power &Cooling and Air Conditioning.	-An N+1 redundancy on core components such as the UPS, PDU's and Air Conditioning Systems. -Dual input power feed from the main power lines/supply. Redundant power systems inclusive of the UPS and PDU's, including stand by generator. Generator Uptime without Mains is at **least 72 Hours.**			
	Cross Connects can be ordered and set up in less than 24 hours.	Must be done by DC Staff and not Outsourced to 3rd Parties.			
NETWORK CONNECTIVITY					
8	Connectivity Links.	Private redundant **30 Mbps** MPLS or Point to Point link (Primary to Secondary site).		**M**	
		10 Mbps MPLS Management & Support link (Primary to KENTRADE office).			
		10 Mbps MPLS Management & Support link (Secondary to KENTRADE office).			
		Dual Redundant internet link to Primary – 30Mbps.			
		Dual Redundant internet link to Secondary – 20 Mbps.			
STORAGE SERVER SYSTEM					
9	Capacity.	The storage system shall be supplied with 115.2 TB of RAW SSD disk space with RAID 6 (in 8+2 configuration). Mandatory Disk Specs: SSD Disk = 20 * 3.84TB, 2.5inch 12Gb/s SAS SSD NVMe SSD = 10 * 3.84TB 2.5in Enterprise NVMe	1	**M**	

		Availability	1. Must be designed to deliver proven five 9s availability (99.999%) using Asymmetric Active-Active and Symmetric Active-Active storage processor configurations. 2. Dual redundant storage controllers with automatic failover. 3. No single point-of-failure architecture.			
		Max FAST Cache	Up to 1.2 TBs or higher.			
		Memory per Array	256 GB or higher.			
		CPU per Array	2 x dual-socket Intel CPUs, 32 cores per Array, 3.0 GHz.			
		System Memory/Cache per Array	256 GB or higher.			
		Total Cache	Up to 1.39 TBs or above.			
		Storage type	Up to 1.39 TBs Unified SAN XT Hybrid (Support flash and HDD storage).			
		OS Support	It must support heterogeneous client operating systems (on both block and file) which include all popular flavours of Windows, Linux and virtualization hypervisors like VMWare, Xen, Hyper-V etc.			
		Efficiency and Service Features	Must maximize efficiency through thin provisioning, Block/File Compression and Block/File De-Duplication.			
		Performance	a) Should be capable of prioritizing host I/O requests over back-end I/O array for better serviceability of servers. b) Storage system must support known virtualization vendors with storage awareness and array offloading features using OD, VASA and VAAI technologies.			
		Cache	a) SSD Caching - The system must be able to dynamically allocate, expand, and utilize read/write cache in every storage processor with the ability to utilize SLC SSD disk drives for caching. b) System must have write cache persistence even during controller failure event.			

				In such event, cache contents must be preserved indefinitely.			
			Data Integrity	System must ensure data integrity is maint ained at all times using dedicated cache mirroring channels, write journaling, proactive sparing, and automatic high-speed failover to ensure zero data loss. b) Storage system must be capable of che cking disk level errors (disk sniffing) as opposed to LUN being LUN specific to detect areas o f disk that are unassigned but might be faulty.			
			SAN Hosts	1024			
			Number of Pools	30			
			Drive rebalancing and spares	Array must support bus rebalancing for improved performance with Portable drive feature where disk drives can be moved t o different enclosures without causing data l oss or RAID reconfiguration Array must have the optimal quantity of global hot spare disks as recommended by the manufacturer (in addition to the usable capacity) that storage-admin customizable with Parallel RAID rebuild and Permanent Sparing technology			

			RAID	The storage **MUST** provide RAID 0/1/10/5/6 and allow transparent migrations between different RAID configurations. Disks should be available while zeroing.			
			Support	Six (6) years manufacturer's 24x7 support.			
			Power Supply	Dual redundant power supplies.			
			I/O modules "Integration and Configuration" Configuration	"10GbE BaseT, 16Gb FC, 25GbE Opt, 10GbE Opt, SAS BE" Logical Configuration of access network, IP Addresses, Virtualization, storage setup etc. per KenTrade unique requirements.			
			Migration	Must provide services for Migration of current Workloads to new infrastructure.			
			Protocols	a) Supports Multiple Protocols b) The storage must natively support NFSv3, NFSv4, NFSv4.1; CIFS (SMB 1), SMB 2, SMB 3.0, SMB 3.02, and SMB 3.1.1; FTP and SFTP; FC, iSCSI and VMware Virtual Volumes (VVols) 2.0 and MPFS and able to swap connectivity modules to allow new or different protocols.			
			Warranty	6 Years Standard Manufactures Warranty Repair: 5x10 HW-Only, 5x10 NBD Onsite.			
			End-of-Life/ End-of-Support	The Storage Device should **NOT BE WITHIN** **Four (4) years** of the end of life cycle.			
			Storage Solution Software Specifications				

		Management	- Allows storage administrators to make qui ck provisioning decisions, generate reports and ensure the health of all systems in the environment offers unified storage for applications that read and write data over block- or file-access protocols, in storage configurations that range from high -speed flash, to lower- priced spinning media, to cloud-based object storage. - Provide a simple, intuitive, customizable cr oss platform tool for managing storage environments -Provide customizable dashboards. -Web- enabled for remote management of the st orage environment. - Allow for access through either the web browser, client or server to manage the storage en vironment. Modular in architecture.			
		Domain creation	Allow creation of storage domains with single sign-on (single authentication). Support for multiple domains in a storage environment.			
		Dashboard	Provide a dashboard with an aggregated view of the storage environment. The dashboard should show: - • Systems by severity			

				• Alerts by severity • Capacity information • Systems with the least capacity • System dashboard with aggregated view of a selected system			
			Hardware views	-Provides graphical depictions of the back-end components. They provide an understanding of back-end architecture and lay-out. -Track the system and state information about various components. -When a back-end component fails, is removed or is not working, a fault displays next to the faulted component.			
			High availability pairs	Configure cluster nodes in high availability (HA)			
			Logical ports	Support creation of logical ports to manage network traffic or VLANs. An interface group can be single-mode, multimode, or dynamic multimode.			
			Support for Client protocols	Supports all major industry-standard network technologies. Key technologies include IP spaces, DNS load balancing, SNMP traps, broadcast domains, failover groups, and subnets.			
			Client protocols	Supports all major industry-standard client protocols: NFS, SMB/CIFS, FC, FCoE, iSCSI, and NVMe/FC.			
			Disks and aggregates	Supports use aggregates to isolate workloads with different performance demands, to tier data wi th different access patterns, or to segregate data for regulatory purposes.			
			Aggregates and RAID groups.	Supports creation of aggregates consisting of one or more RAID groups.			
			Root-data partitioning.	Provide support for root-data partitioning to reduce the parity tax by apportioning the root aggregate across disk partitions, reserving one small			

				partition on each disk as the root partition and one larg e partition for data.			
			Logical containers	Supports Volumes, files, and LUNs.			
			Storage virtualization	Support use of storage virtual machines (SVMs) to serve data to clients and hosts.			
			Namespaces and junction points	Support for NAS namespace and junction points.			
			Path failover	Support management of path failover.			
			Load Balancing	Supports maintenance of performance of workloads when it begins to be affected by latency when the amount of work on a node exceeds the available resources. This is managed by increasing the available resources (upgrading disks or CPU), or by reducing load (moving volumes or LUNs to different nodes as needed).			
			QoS	Support use storage technology for quality of service (QoS) to guarantee that performance of critical workloads is not degraded by competing workloads.			
			Replication	Support replication technologies to enable disa ster recovery (DR) and data archiving.			
			Snapshots	Support creation of snapshot copies which are set up through the snapshot policy.			
			Mirror	Support Mirroring disaster recovery technology.			
			Archiving	Support an archiving technology, designed for disk-to-disk Snapshot copy replication for standards compliance and other governance-related purposes.			
			Cluster configurations	Support Cluster continuous availability.			
			Thin provisioning	Supports creation of thin-provisioned volume or LUN is			

			one for which storage is not reserved in advance.			
		Deduplication	Supports Deduplication to reduce the amount of physical storage required for a volume by discarding duplicate Blocks and replacing them with references to a single shared block.			
		Compression	Supports Compression to reduce the amount of physical storage required for a volume by combining data blocks in compression groups, each of which is stored as a single block.			
		Client authentication and authorizatio n	Supports the authentication of a client machine. And user by verifying their identities with a trusted source.			
		Administrator authentication and RBAC	Supports the Role-Based Access Control (RBAC).			
		Virus scanning	The system to have an integrated antivirus functionality on the storage system to protect data from being compromised by viruses or other malicious code.			
		Encryption	Supports both software- and hardware-based encryption technologies for ensuring that data at rest cannot be read if the storage medium is repurposed, returned, misplaced, or stolen.			
		WORM storage	Is integrated with a high-performance compliance solution that support write once, read many (WORM) storage to retain critical files in unmodified form for regulatory and governance purposes.			
		Application aware data management.	- Application aware data management enables y ou to describe the application that you want to -Deploy over system in terms of the application, rather than in storage terms.			

VIRTUALIZATION					
10	Provide 6 years licensing.	6 Servers with 2 sockets each giving a total of 12 Sockets		M	
	Virtualization Software Solution.	i. **Virtualization Software Solution** Virtualization software shall provide a Virtualization layer that sits directly on the bare metal server hardware with no dependence on a general-purpose OS for greater reliability and security. ii. The solution shall allow for creation of multiple virtual machines to run multiple operating systems such as windows, Linux, Unix, etc in a single physical hardware. iii. The solution shall enable you to run your workloads on top of multiple virtual machines to fully utilize the computing resource and free from multiple physical hardware. iv. Virtualization software shall have the capability to create Virtual machines with up to 128 virtual processors and 4 TB virtual RAM in virtual machines for all the guest operating system supported by the hypervisor.			
	Virtualization Software Solution	v. Virtualization software shall support live Virtual Machine migration from one physical host to another and between virtual switches with enhanced CPU compatibility and without the need for shared storage vi. Virtualization software shall provide for live migration of Virtual machines files from one storage array to another without any downturn.			
	Migration	Migrations of the existing services from the current infrastructure to the new Infrastructure.			
	Training	Training of the ICT technical team on the virtualization and storage solutions provided. At least 4 staff to Certification Level			

	Service Level Agreement	6-year service level agreement to support the servers, virtualization software and storage.			

SECONDARY SITE TECHNICAL REQUIREMENTS

S/No	Item	Description	Qty	Bidder Response	Score
SERVERS					
1	**To Host the following Environments;** WEB/SFTP/ COMMS Application MQ/DIRECTORY Database BACKUP Virtualization ADMIN and OPCENTRE/SYSLOG and Resource Monitoring.	-Dual Socket Intel Xeon Gold 5218 ---- Processor 16c 2.30 - 3.90 GHz 22 MB 125W DDR4 2666 Processor 32 cores per server -Two (2) 960 GB SSD internal disk for OS. -256 GB Memory per Server. -Standard manageability interface. -Compute LAN I/O Modules MUST support 25G SFP28. -Storage connectivity MUST support 16Gbps minimum. -The Server system must fit in the provided rack Redundant Power supply. -Warranty and Support 6Years.	**8**		M
REPLICATION & BACKUP AS A SERVICE					
2	In Country Low Latency Backup as a Service.	**6 years** subscription. Industry-leading backup & replication solution. Bidder must provide all the licenses & infrastructure required for Primary to DR replication and relevant backup software.	1		M

		50TB Disk-to-Disk Backup.	-Fast, reliable, application-aware, image-based backups. -Unlimited capacity and cost savings for long-term data retention on object storage. -Enterprise application support for SAP HANA and Oracle RMAN. -Leverage seriously powerful NAS Backup with multiple options for faster data processing and flexible recovery options. -Site to Site Replication (PR to DR) **Intelligent recovery** -Mass instant restores with Wholescale VM Instant Recovery. -Advanced replication and failover for Disaster Recovery Monitoring and analytics -24x7 real-time environment monitoring, reporting and alerting. -Built-in intelligence to identify and help resolve common misconfigurations and backup problems. -Effective capacity planning and forecasting.			
		Location	The Backup infrastructure should be located in the DR site datacentre for ease of Data transfer between backup and DR/PR environments. Backups shall be performed in the following order: **Primary > DR > Backup**			
		NETWORK SWITCHES				
		Software Defined Networking (SDN) Switches, Software Defined Storage (SDS) with Network Operating System to provide:				
	3	1. Link aggregation Switch.	Minimum 32-port 40/100G SFP+/QSFP28 ports -Should have at Least One USB Port. -Supports a minimum of 3.2 Tbps of bandwidth. -Fans: hot-swappable 5 redundant fans. -Operating Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F). -Packet Buffer Minimum of 16 MB Supports Minimum of 3967 VLANs. -Minimum of RJ-45 100/1000BASE-T management port.	**2**		M

			-Compatible with capable controllers and applications that take full advantage of automated, policy-based, systems-management approach. -Supports VLAN. Hot-swappable redundant fans. -Operating Temperature: 0°C to 45°C (32°F to 113°F). Packet Buffer Size Minimum of 16 MB -6 Year support and Warranty.			
		ii. Corporate SDN Fabric Core Switching Capability. Server Access Switching Capability DMZ Server Access Switching Capability	-48-Port 25G SFP28 + 8x100G QSFP+ uplink switch, should have at Least One USB Port. -Supports a minimum of 1.28 Tbps of bandwidth -Fans: hot-swappable 5 redundant fans Operating Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F) -Packet Buffer Minimum of 16 MB. -Minimum of RJ-45 100/1000BASE-T management port Compatible with capable controllers and applications that take full advantage of automated, policy-based, systems-management approach. -Supports VLAN. -Hot-swappable redundant fans Operating Temperature: 0°C to 45°C (32°F to 113°F) Packet Buffer Size Minimum of 16 MB -6 Year support and Warranty.	**2**		**M**
		iii. Storage Software Defined Storage (SDN) Fabric	-48-Port 25G SFP28 + 8x100G QSFP+ uplink switch, -Should have at Least One USB Port. Supports a minimum of 1.28 Tbps of bandwidth. -Fans: hot-swappable 5 redundant fans. -Operating Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F). -Packet Buffer Minimum of 16 MB -Minimum of RJ-45 100/1000BASE-T management port	**2**		**M**

			-Compatible with capable controllers and applications that take full advantage of automated, policy-based, systems-management approach. -Supports VLAN. -Hot-swappable redundant fans -Operating Temperature: 0°C to 45°C (32°F to 113°F) Packet Buffer Size Minimum of 16 MB -6 Year support and Warranty.			
	FIREWALLS					
	4	Tier I Firewall (Must be Different OEM from DC Firewall).	2x GbE RJ45 or 2x 10G SFP+ Management Ports. 8x NIC Module Slots, with Support for 1/10/40/100G Copper/Fiber Interface. 2x 3.5" or 2x 2.5" External Bays, 2x USB 3.0, 1x RJ45 & 1x Mini USB Consoles 1+1 ATX redundant PSUs and 4x Individual Hot-swappable Cooling Fans, 1x PCI-E*16 FH/HL Geolocation IDS/IPS Intrusion detection or prevention systems Sandboxing Web proxy and URL checking Reverse proxy Web application firewall. Threat intelligence. The device must support HA- Active -Active as well active Passive 6yrs Warranty & support	**2**		**M**
		DC Firewall (Must be different OEM from Tier I Firewall).	2x GbE RJ45 or 2x 10G SFP+ Management Ports 8x NIC Module Slots, with Support for 1/10/40/100G Copper/Fiber Interface 2x 3.5" or 2x 2.5" External Bays, 2x USB 3.0, 1x RJ45 & 1x Mini USB Consoles 1+1 ATX redundant PSUs and 4x Individual Hot-swappable Cooling Fans, 1x PCI-E*16 FH/HL Geolocation IDS/IPS Intrusion detection or prevention	**2**		M

			systems Sandboxing Web proxy and URL checking Reverse proxy Web application firewall Threat intelligence The device must support HA- Active -Active as well active Passive 25G SFP - 100G SFP Modules (Quantity depends on Solution design) 6yrs Warranty & support			
	LOAD BALANCERS					
	5	Load Balancers	**Virtual Machine Based** -L4/7 Load Balancing for all TCP/UDP Server and Application health monitoring. -Encryption acceleration with FIPS 140-2 support. -Caching, Compression, TCP Multiplexing, SSL Offload Works with most Hypervisors and IaaS Cloud Platforms. -Full Rest API, Automation Enabled Authorization, Authentication & Single Sign On. -Web Application Firewall and IPS – with Daily Threat Updates GSLB – Global Traffic Management Central Management, Provisioning & Performance Insights -Monitoring, Reporting and AI-enabled proactive Remediation -7x24 Premium Live Support. -The solution Must support HA- Active -Active as well active Passive 6yrs Warranty & support	**2**		
	COLOCATION DATACENTRES - SECONDARY SITE					
	6	Collocation racks	Must be provided by the DC. In case where the DC does not provide the racks, bidder must provide for rack to house the equipment.	**1**		M
		Level of Uptime	99.999%.			

			DC TIER	At least **TIER III** Certification: Provide evidence of Certificate OR Uptime Institute Approvals prior to certification			
			Data Center Certified for ISO 27001	Provide Evidence of certification OR Processes procedures that conform to ISO/IEC/27001:2013			
			Data Center MUST be within 30 KM from CBD Nairobi	Please share location details/Google Maps link.			
			Distance between proposed DCs	Proposed Primary and DR data centres must be a minimum of 10Kms apart.			
			Data Centre Facility	Data Center MUST not be in a multi-tenant building			
			DC Access	KENTRADE approved and authorized IT Staff and Support Partners must be able to access the DC Site 24X7X365, without prior notification in case of emergencies. However, the DC MUST have Authorization and Authentication of Access with KenTrade approvals for access to environment			
			DC must be Carrier Neutral	Provide Evidence. Listing all ISP available at the DC.			
			Data Centre Facility Insurance	The Data center to Provide Evidence of Insurance of the Facility			
			Power & Cooling	An N+1 redundancy on core components such as the UPS, PDU's and Air Conditioning Systems. Dual Input power feed from the main power lines/supply. Redundant power systems inclusive of the UPS and PDU's, including			

		standby generator. Generator Uptime without Mains = at least 72 Hours.			
	Cross Connects can be ordered and set up in less than 24 Hours.	Must be done by DC Staff and not Outsourced to 3rd Parties			
STORAGE SERVER SYSTEM					
7	Capacity.	The storage system shall be supplied with 115.2 TB of RAW SSD disk space with RAID 6 (in 8+2 configuration). Mandatory Disk Specs: SSD Disk = 20 * 3.84TB, 2.5inch 12Gb/s SAS SSD NVMe SSD = 10 * 3.84TB 2.5in Enterprise NVMe			M
	Availability	1. Must be designed to deliver Proven Five 9s availability (99.999%) using Asymmetric. Active-active and Symmetric Active-Active storage processor configurations. 2. Dual redundant storage controllers with automatic failover. 3. No single point-of-failure architecture.			
	Max FAST Cache	Up to 1.2 TBs.			
	Memory per Array.	256 GB			
	CPU per Array	2 x dual socket Intel CPUs, 32 cores per Array, 3.0 GHz.			
	System Memory/Cache per Array	256 GB			

			Total Cache	Up to 1.39 TBs			
			Storage type	Up to 1.39 TBs Unified SAN XT Hybrid (Support flash and HDD storage)			
			OS Support	It must support heterogeneous client operating systems (on both block and file) which include a ll popular flavours of Windows, Linux and virtualization hypervisors like VMWare, Xen, Hyper-V etc.			
			Efficiency a nd Service Fea tures	Must maximize efficiency through thin provisioning, Block/File Compression and Block/File De-Duplication.			
			Performanc e	a) Should be capable of prioritizing host I/O requests over back-end I/O array for better serviceability of servers. b) Storage system must support known virtualization vendors with storage awareness and array offloading features using ODX, VASA, and VAAI technologies.			
			Cache	a) SSD Caching - The system must be able to dynamically allocate, expand, and utilize read/write cache in every storage processor wi th the ability to utilize SLC SSD disk drives for caching. b) System must have write cache persistenc e even during controller failure event. In such event, cache contents must be preserved indefinitely			
			Data Integr ity	a) System must ensure data integrity is maintained at all times using dedicated cache mirroring channels, write journaling, proactive sparing, and automatic high-speed failover to ensure zero data loss. b) Storage system must be capable of checking disk level errors (disk sniffing) as opposed to LUN being LUN specific to detect areas of disk that are unassigned but might be faulty.			

		SAN Hosts	1024			
		No. of Pools	30			
		Drive rebalancing and spares.	a) Array must support bus rebalancing for improved performance with portable drive feature where disk drives can be moved to different enclosures without causing data loss or RAID reconfiguration. b) Array must have the optimal quantity of global hot spare disks as recommended by the manufacturer (in addition to the usable capacity) that storage-admin customizable with Parallel RAID rebuild and Permanent Sparing technology.			
		RAID	The storage **MUST** provide RAID 0/1/10/5/6 and allow transparent migrations between different RAID configurations. Disks should be available while zeroing.			
		Support	Three (6) years manufacturer's 24x7 support.			
		Power Supply	Dual redundant power supplies			
		I/O modules	"10GbE BaseT, 16Gb FC, 25GbE Opt, 10GbE Opt, SAS BE"			
		"Integration and Configuration" Configuration	Logical Configuration of access network, IP Addresses, Virtualization, storage setup etc. per KenTrade unique requirements.			
		Migration	Must provide services for Migration of current Workloads to new infrastructure.			

		Protocols	a) Supports Multiple Protocols b) The storage must natively support NFSv3, NFSv4, NFSv4.1; CIFS (SMB 1), SMB 2, SM B 3.0, SMB 3.02, and SMB 3.1.1; FTP and SF TP; FC, iSCSI and VMware Virtual Volumes(VVols) 2.0 and MPFS and able to swap connectivity modules to allow new or different protocols.			
		Warranty	6 Years Standard Manufactures Warranty Repair: 5x10 HW-Only, 5x10 NBD Onsite			
		End-of-Life/End	The Storage Device should **NOT BE WITHIN** **Four (4) years** of the end of life cycle.			
		Storage Solution Software Specifications				
		Managemen t	-Allows storage administrators to make quick provisioning decisions, generate reports a nd ensure the health of all systems in the Environment offers unified storage for applications that read and write data over block- or file access protocols, in storage configurations that range from high-speed flash, to lower- priced spinning media, to cloud- based object storage. Provide a simple, intuitive, customizable cross platform tool for managing storage environmen ts -Provide customizable dashboards Web-			

				enabled for remote management of the storage environment. Allow for access through either the web browser, client or server to manage the storage environment. Modular in architecture.			
			Domain creation	Allow creation of storage domains with single sign-on (single authentication). Support for multiple domains in a storage environment.			
			Dashboard	Provide a dashboard with an aggregated view of the storage environment. The dashboard should show: • Systems by severity • Alerts by severity • Capacity information • Systems with the least capacity • System dashboard with aggregated view of a selected system			
			Hardware Views	"Provides graphical depictions of the back-end components. They provide an understanding of back-end architecture and lay-out" Track the system and state information about various components When a back-end component fails, is removed or is not working a fault displays next to the faulted component.			
			High availability pairs.	Configure cluster nodes in high-availability (HA).			

		Logical ports	Support creation of logical ports to manage network traffic or VLANs. An interface group can be single-mode, multimode, or dynamic multimode.			
		Support for	Supports all major industry-standard network technologies. Key technologies include IP spaces, DNS load balancing, SNMP traps, broadcast domains, failover groups and subnets.			
		Client protocols	supports all major industry-standard client protocols: NFS, SMB/CIFS, FC, FCoE, iSCSI, and NVMe/FC.			
		Disks and aggregates.	Supports use aggregates to isolate workloads with different performance demands, to tier data with different access patterns, or to segregate data for regulatory purposes.			
		Aggregates and RAID groups.	Supports creation of aggregates consisting of one or more RAID groups.			
		Root-data partitioning.	Provide support for root data partitioning to reduce the parity tax by apportioning the root aggregate across disk partitions, reserving one small partition on each disk as the root partition and one large partition for data.			
		Logical containers.	Supports Volumes, files, and LUNs			
		Storage virtualization.	Support use of storage virtual machines (SVMs) to serve data to clients and hosts.			
		Namespaces and	Support for NAS namespace and junction points.			

			junction poi nts.				
			Path failove r	Support management of path failover.			
			Load Balan cing	Supports maintenance of performance of workloads when it begins to be affected by latency when the amount of work on a node exceeds the available resources. This is managed by increasing the available resources (upgrading disks or CPU), or by reducing load (moving volumes or LUNs to different nodes as needed).			
			QoS	Support use storage technology for quality of service (QoS) to guarantee that performance of critical workloads is not degraded by competing workload.			
			Replication	Support replication technologies to enable disas ter recovery (DR) and data archiving.			
			Snapshots	Support creation of snapshot copies which are set up through the snapshot policy.			
			Mirror	Support Mirroring disaster recovery technology.			
			Archiving	Support an archiving technology, designed for disk- to-disk snapshot copy replication for standards compliance and other governance-related purposes.			
			Cluster configuratio ns	Support Cluster continuous availability.			
			Thin provisionin g	Supports creation of thin-provisioned volume or LUN is one for which storage is not reserved in advance.			

			Deduplication	Supports deduplication to reduce the amount of physical storage required for a volume by discarding duplicate blocks and replacing them with references to a single shared block.			
			Compression	Supports compression to reduce the amount of physical storage required for a volume by combining data blocks in compression groups, each of which is stored as a single block.			
			Client authentication and authorization	Supports the authentication of a client machine and user by verifying their identities with a trusted source.			
			Administrator authentication and RBAC.	Supports the Role-Based Access Control (RBAC).			
			Virus scanning	The system to have an integrated antivirus functionality on the storage system to protect data from being compromised by viruses or other malicious code.			
			Encryption	Supports both software- and hardware-based encryption technologies for ensuring that data at rest cannot be read if the storage medium is repurposed, returned, misplaced, or stolen.			
			WORM storage	Is integrated with a high-performance compliance solution that support write once, read many (WORM) storage to retain critical files in unmodified form for regulatory and governance purposes.			
			Application aware data	Application aware data management enables you to describe the application that you want to deploy over system in terms of the			

	management	application, rather than in storage terms.			
VIRTUALIZATION					
8	Provide 6 years licensing.	8 Servers each with 2 Sockets giving a total of 16 Sockets.			
	Virtualization Software Solution.	a)**Virtualization Software Solution** Virtualization software shall provide a Virtualization layer that sits directly on the bare metal server hardware with no dependence on a general-purpose OS for greater reliability and security. b) The solution shall allow for creation of multiple virtual machines to run multiple operating systems such as windows, Linux, Unix, etc in a single physical hardware. c) The solution shall enable you to run your workloads on top of multiple virtual machines to fully utilize the computing resource and free from multiple physical hardware. d) Virtualization software shall have the capability to create Virtual machines with up to 128 virtual processors and 4 TB virtual RAM in virtual machines for all the guest operating system supported by the Hyper-V. e) Virtualization software shall support live Virtual Machine migration from one physical host to another and between virtual switches with enhanced CPU compatibility and without the need for shared storage. f) Virtualization software shall provide for live migration of Virtual machines files from one storage array to another without any Virtual			

	Migration	Migrations of the existing services from the current infrastructure to the new Infrastructure.			
	Training	Training of the ICT technical team on ten (10) on the Server, network, security, virtualization and storage solutions provided.			
	Service Level Agreement (SLA).	6-year service level agreement to support the servers, virtualization software and storage.			

B (ii)VENDOR EVALUATION

The maximum score under **Vendor evaluation is 80 marks**. Bidders Must score **at least 75 marks** out of the **80** under this section to proceed to the next stage (Due Diligence).

		Max. Score	**Evaluated Score**
Reference Sites	Proof of implementation of an enterprise level solution for a government / Corporate institution in Kenya in the last 3 years. (**SAME** Magnitude or higher in **Cost and Scope-)** (Bidder **MUST** Attach completion certificate. Reachable Current Contacts of Reference Persons (Official E-mail address and Telephone) and Value of Project) at **least 3 Sites. (3 Marks-1 for each site)** ☐ 3 sites completed--------12 Marks ☐ 2 sites completed--------8 Marks ☐ Less than 2 sites completed-----0 Mark	**15**	
Technical Competence	Skills, Experience and certification for proposed solution: The Bidder	**29**	

	for the Assignment	Must have Competent experienced Engineers certified to high level of the proposed solutions. • At least 5 CV's of Implementation Team with Project Manager having Bachelor's degree level or Above **(5 Marks – (1 Mark each).** • Above 20 years Cumulative Experience of the Team – **(7 Mark).** -Between 5-6 years cumulative experience**- (5marks)** **-**less than 5 years cumulative experience- **(0 marks)** • At least 2 Expert/Architect level certified Engineers - Vendor Specific Certification for the Solutions proposed as follows: i. Network- at least 1 CCIE R& S or equivalent– **(5 Marks)** ii. Security- 2 Architect or Vendor specific Equivalent- **(4Marks)** iii. Operating System – 2 Certified Engineers **(2 Marks)** iv. Storage, - 2 Certified Engineers **(2 Marks)** v. Replication, - 2 certified Engineers **(2 Marks)** vi. Virtualization- 2 certified Engineers **(2Marks)**			
	Project Management IT Service Management,	Given the critical nature of KenTrade IT production environment, the partner should have project resources who are	**10**		

	trained and certified in the following areas: - ▪ Project Management – Prince 2, PMP or related Qualification for at least one Team Member **(1 Marks).** ▪ IT Change management: At least 1 ITIL certified team member **(1 Marks).** Additionally, the bidder must present the following: - • Project Plan with Clear Tasks and Activities defined with Timelines and Milestone in a Gannt chart **(4 Marks).** ▪ Project Team Organogram - Clearly indicating the Escalation Matrix **(2 Marks).** ▪ Proof of Helpdesk (IT Service Desk) -Reachable on Both Phone and E-mail **(2 Marks).**		
Technical Design Proposal	▪ Comprehensive Technical Design Proposal, with Diagrammatic illustrations of the Logical and Physical design Proposals of the Solution	**16**	

B (iii) Due Diligence (20 marks)

The maximum score under this stage of evaluation is **20 marks**. Bidders must score **at least 17 out of the 20marks** to proceed to the next stage.

Due diligence will be undertaken through site visits to the bidders' reference sites in order to confirm the authenticity of the sites and the scope of work done in relation this project amongst other criteria stipulated below. At least two sites will be visited (for each site 10 marks). The scores will be spread out as follows per site: -

No.	Criteria	Maximum Score

	1.	Authenticity of the site provided. **NB: If authenticity for any provided site is established to be false, the bidder will score zero for Due Diligence**	**Mandatory**
	2.	Proof of the scope of work carried out. The aspect of replication between sites must be demonstrated.	**4**
	3.	Proof of completion of work on site. **NB: If work has not been completed at any of the reference sites provided, the bidder will score zero for Due Diligence**	**2**
	4.	Team involved in the implementation. (Relevant qualification to be considered)	**2**
	5.	Client satisfaction on the deployment and post implementation support. Project timelines met, deliverables and general performance of the contractor will be examined.	**2**
		Total	**10**

2.27.4 **C. FINANCIAL EVALUATION**

The bidder with the lowest financial quote shall be recommended for award of this tender provided they have met all Mandatory requirements in Preliminary Evaluation and Compliance to technical specifications, and scored a minimum of **91 marks** in both Vendor evaluation and due diligence as per the set criteria.

SECTION III GENERAL CONDITIONS OF CONTRACT

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SECTION III GENERAL CONDITIONS OF CONTRACT

3.1 Definitions

In this contract the following terms shall be interpreted as indicated:

a) "The contract" means the agreement entered into between the Procuring entity and the tenderer as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

b) "The Contract Price" means the price payable to the tenderer under the Contract for the full and proper performance of its contractual obligations.

c) "The services" means services to be provided by the contractor including materials and incidentals which the tenderer is required to provide to the Procuring entity under the Contract.

d) "The Procuring entity" means the organization sourcing for the services under this Contract.

e) "The contractor means the individual or firm providing the services under this Contract.

f) "GCC" means general conditions of contract contained in this section

g) "SCC" means the special conditions of contract

h) "Day" means calendar day

3.2 Application

These General Conditions shall apply to the extent that they are not superceded by provisions of other part of contract.

3.3 Standards

3.3.1 The services provided under this Contract shall conform to the 7 standards mentioned in the Schedule of requirements

3.5 Patent Right's

The tenderer shall indemnify the Procuring entity against all third-party claims of infringement of patent, trademark, or industrial design tights arising from use of the services under the contract or any part thereof.

3.6 Performance Security

Within thirty (30) days of receipt of the notification of Contract award, the successful tenderer shall furnish to the Procuring entity the performance security where applicable in the amount specified in Special Conditions of Contract.

3.6.2 The proceeds of the performance security shall be payable to the Procuring entity as compensation for any loss resulting from the Tenderer's failure to complete its obligations under the Contract.

3.6.3 The performance security shall be denominated in the currency of the Contract, or in a freely convertible currency acceptable to the Procuring entity and shall be in the form of :

a) Cash.

b) A bank guarantee.

c) Such insurance guarantee approved by the Authority.

d) Letter of credit.

3.6.4 The performance security will be discharged by the procuring entity and returned to the candidate not later than thirty (30) days following the date of completion of the tenderer's performance of obligations under the contract, including any warranty obligations under the contract.

3.7 Inspections and Tests

3.7.1 The Procuring entity or its representative shall have the right to inspect and/or to test the services to confirm their conformity to the Contract specifications. The Procuring entity shall notify the tenderer in writing, in a timely manner, of the identity of any representatives retained for these purposes.

3.7.2 The inspections and tests may be conducted on the premises of the tenderer or its subcontractor(s). If conducted on the premises of the tenderer or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Procuring entity.

3.7.3 Should any inspected or tested services fail to conform to the Specifications, the Procuring entity may reject the services, and the tenderer shall either replace the rejected services or make alterations necessary to meet specification requirements free of cost to the Procuring entity.

3.7.4 Nothing in paragraph 3.7 shall in any way release the tenderer from any warranty or other obligations under this Contract.

3.8 Payment

3.8.1 The method and conditions of payment to be made to the tenderer under this Contract shall be specified in SCC

3.9 **Prices**

Prices charged by the contractor for services performed under the Contract shall not, with the exception of any Price adjustments authorized in SCC, vary from the prices by the tenderer in its tender or in the procuring entity's request for tender validity extension as the case may be. No variation in or modification to the terms of the contract shall be made except by written amendment signed by the parties.

3.10 **Assignment**

The tenderer shall not assign, in whole or in part, its obligations to perform under this contract, except with the procuring entity's prior written consent.

3.10 Termination for Default

The Procuring entity may, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the tenderer, terminate this Contract in whole or in part:

a) if the tenderer fails to provide any or all of the services within the period(s) specified in the Contract, or within any extension thereof granted by the Procuring entity.

b) if the tenderer fails to perform any other obligation(s) under the Contract.

c) if the tenderer, in the judgment of the Procuring entity has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

In the event the Procuring entity terminates the Contract in whole or in part, it may procure, upon such terms and in such manner as it deems appropriate, services similar to those undelivered, and the tenderer shall be liable to the Procuring entity for any excess costs for such similar services.

3.12 Termination of insolvency

The procuring entity may at the any time terminate the contract by giving written notice to the contractor if the contractor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the contractor, provided that such termination will not produce or affect any right of action or remedy, which has accrued or will accrue thereafter to the procuring entity.

3.13 Termination for convenience

3.13.1 The procuring entity by written notice sent to the contractor may terminate the contract in whole or in part, at any time for its convenience. The notice of termination shall specify that the termination is for the procuring entity convenience, the extent

to which performance of the contractor of the contract is terminated and the date on which such termination becomes effective.

3.13.2 For the remaining part of the contract after termination the procuring entity may elect to cancel the services and pay to the contractor on agreed amount for partially completed services.

3.14 Resolution of disputes

The procuring entity's and the contractor shall make every effort to resolve amicably by direct informal negotiations any disagreement or dispute arising between them under or in connection with the contract.

If after thirty (30) days from the commencement of such informal negotiations both parties have been unable to resolve amicably a contract dispute either party may require that the dispute be referred for resolution to the formal mechanisms specified in the SCC.

3.15 Governing Language

The contract shall be written in the English language. All correspondence and other documents pertaining to the contract, which are exchanged by the parties, shall be written in the same language.

3.16 Force Majeure

The contractor shall not be liable *for* forfeiture of its performance security, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

3.17 Applicable Law.

The contract shall be interpreted in accordance with the laws of Kenya unless otherwise specified in the SCC

3.18 Notices

Any notices given by one party to the other pursuant to this contract shall be sent to the other party by post or by fax or E-mail and confirmed in writing to the other party's address specified in the SCC

A notice shall be effective when delivered or on the notices effective date, whichever is later.

SECTION IV SPECIAL CONDITIONS OF CONTRACT

4.1 Special conditions of contract shall supplement the general conditions of contract, wherever there is a conflict between the GCC and the SCC, the provisions of the SCC herein shall prevail over those in the GCC.

4.2 Special conditions of contract with reference to the general conditions of contract.

General conditions of contract reference	Special conditions of contract
3.6	Performance Security shall be 5% of the tender price
3.9	Prices shall be fixed for the first year of contract implementation
3.14	Disputes shall be resolved between the two parties through mechanisms provided under the Kenyan Law
3.17	Kenyan Law
3.18	Kenya Trade Network Agency, Embankment Plaza, 1st Floor, P.O Box 36943-00200, NAIROBI. Email: procurement@kentrade.go.ke

SECTION V – SCHEDULE OF REQUIREMENTS

This part will include any deliverables under the service contract

Number	Description	Quantity	Delivery Time Start_____ End_____

SECTION VI – TECHNICAL REQUIREMENTS

6.0. INTRODUCTION

Kenya Trade Network Agency (KENTRADE) is a State Corporation under the National Treasury. The mandate of KENTRADE is to implement, operationalize and manage the Kenya National Electronic Single Window System (Kenya TradeNet System) and to facilitate Trade.

KENTRADE requires a hosting environment for its Upgraded System - **The Trade Facilitation Platform (TFP).** The hosting environment providers shall supply and set up hardware at their selected Data Centers to meet the hosting requirements of the Trade Facilitation Platform (TFP) Application. KENTRADE shall only provide supporting software and the TFP Application. As such, all servers and other components on the Hardware Bill of Materials MUST be catered for in the hosting Data Center. The selected solution provider shall provide at least a **Tier III Data** to guarantee uptime of at least **99.999%.**

The selected bidder shall provide a general quotation listing the Equipment cost, recurrent monthly charges for hosting as well as connectivity as per the price schedule provided herein. In addition, they will provide a delivery time frame which should not exceed 7 weeks after the Contract Signing. KENTRADE intends to utilize the hosting services and related components for a period of six years from the date of successful completion of installation, commissioning, Acceptance Test (AT) and sign-off. The service provider shall provide reports for:

i. Planned Preventive Maintenance schedules.
ii. Monthly Network Availability and Utilization.
iii. System Security Incidents.
iv. Monthly support tickets

6.1 DELIVERABLES

The deliverables for this project will be, but not limited to the following:

a) A Technical Proposal including detailed design Architecture.
b) Hosted TFP Primary site Environment and Set up (Procurement, Installations, configurations, testing and commissioning) to meet requirements as specified in this tender.
c) Hosted TFP Secondary site Environment and Set up (Procurement, Installations, configuration, testing and commissioning) to meet requirements as specified in this tender.
d) Set up of a Private redundant 20 Mbps MPLS link between this Hosted Primary Data Center and Secondary site Data Center.

e) Set up of a Private 10 Mbps MPLS Management and support link between the Hosted Primary Data Center and KenTrade HQ.
f) Set up of a Private 10 Mbps MPLS Management and support link between the Hosted secondary Data Center and KenTrade HQ.
g) 30 Mbps Internet connectivity at the Hosted TFP Primary site Data Center.
h) 30 Mbps internet Connectivity at the Hosted TFP secondary site Data Center.
i) Establish effective and efficient Infrastructure monitoring & management practices to ensure reliability, availability, quality of services and security of information systems with fault alerts on emails and sms.
j) Help desk and other monitoring and management services.
k) Provide and Set-up replication between the two sites.
l) Scheduled Preventive Maintenance services of Data Center facilities.
m) Corrective maintenance services of Data Center facilities.
n) Power and Cooling Management Services.
o) Remote Administration and Monitoring.
p) Ensure the Data Center facilities meet Tier III level of availability.
q) Installation and Commissioning report.
r) Technical Training.
s) 6yr warranty for all Equipment and 24X7 manufacturer & partner support

6.2 Scope of work

1. Supply, installation and commissioning of the following Primary and Secondary site equipment;
    i. Servers.
    ii. Shared storage.
    iii. Load balancers and Web Application Firewalls
    iv. Network equipment – Switches and related rack cabling
    v. Edge Firewalls (Tier1) and Data Centre Firewalls (Tier 2)
2. Installation and configuration of replication between the two Sites and Testing of Fail-over.
3. Provisioning of link between Primary and Secondary site.
4. Testing of replication between Primary and Secondary site.
5. Management links between Primary site - KenTrade HQ and Secondary site - KenTrade HQ (10 Mbps MPLS link).
6. Internet link of 30 Mbps capacity to the Primary site and the secondary site.

ALL equipment should have a Warranty and Support Period of **6 years.** Other items like **cabling and consumables, should be factored in the overall cost of the solution**. Brochures **MUST** be provided for evaluation purposes (this should cover the various

components as per requirements presented) and Post Implementation training of the solution **MUST** be carried out.

All licensing requirements for software **MUST** be included in the **Financial Quote** and must be for 6years. Network equipment should have **AT LEAST 3 YEARS** to attain End-Of-Life. All equipment will be subjected to Authenticity confirmation from the manufacturer. All equipment support MUST have 24 x7x365 with next business (NBR) day part replacement

6.3 TECHNICAL REQUIREMENTS

Technical requirements **for each site** are as listed below: -

- Nine (9) Servers Primary Site and Eight (8) Servers Secondary Site
- Two (2) Corporate SDN Fabric Switches.
- Two (2) Link Aggregation Switches.
- Two (2) Storage Software Defined Storage (SDS) Fabric Switches.
- Two (2) Rack Enclosures 42 U Rack Enclosure.
- Two (2) Edge (Tier 1) Firewalls in HA. Bidder Must provide SFP Modules 25G-100G
- Two (2) Load Balancers with integrated Web Application Firewalls in HA.
- Two (2) Data Centre Firewalls.
- Software Defined Storage.
- Virtualization.
- Replication
- Data Centre services – For Collocation of Primary and Secondary Environments.
- Internet Connectivity Services

6.4 EVALUATION CRITERIA

The evaluation criteria shall be done as follows: -

A. Preliminary Evaluation / Mandatory Requirements
B. Technical Evaluation
    i. Compliance to Technical Specifications
    ii. Vendor Evaluation
    iii. Due Diligence
C. Financial Evaluation

C. PRELIMINARY EVALUATION/MANDATORY REQUIREMENTS

Bidders MUST comply with all mandatory requirements to be considered for Technical evaluation. Bidders who fail to meet all mandatory requirements will be considered **NON-RESPONSIVE**.

xiii. Form of Tender dully filled and signed.

xiv. Power of Attorney.

xv. Verifiable Statutory documents

- Registration certificate/ Certificate of incorporation
- Valid Tax Compliance Certificate (TCC).
- Valid trade license.

- Form CR 12

xvi. Confidential Business questionnaire duly filled and signed

xvii. Tender Security (indicate values and duration).

xviii. Manufacturer authorization: Separate Manufacturer Authorizations to be presented for (For Oracle, Network, Servers, Storage and Load Balancers, web Application Firewall)

xix. Current ICTA -I Certificate – 1. Information Security AND 2. IT Infrastructure

xx. Current NCA-4 and above – Electrical Engineering -Structured Cabling and Telcom's

xxi. Valid Communication Authority of Kenya (CA) certificate

xxii. Audited financial accounts for the past three years (This shall form part of the technical evaluation).

xxiii. Bidders must provide written proof of ownership of Data Centre OR Partnership with at least Tier III Data Centre for a period of at least 6 Years. (Site visits to the Data Centers will form part of the tender evaluation).

xxiv. Bidders **Must** paginate their documents

Bidders MUST comply with all mandatory requirements to be considered for the next evaluation stage (Technical evaluation).

D. (i) COMPLIANCE TO TECHNICAL SPECIFICATIONS

The technical requirements for the equipment are detailed below and bidders are expected to respond on **a clause by clause** basis stating clearly how their solution meets the requirements. Responses to compliance on technical specifications in any other way other than clause by clause will be treated as **NON-RESPONSIVE**. Responses such as **"complied", "possible to do", "meets"** will be considered as **NON-RESPONSIVE** and will **NOT** be awarded any scores. Bidders are expected to clearly present their solution in the tables provided supported by appropriate brochures of the proposed solution. All clauses **MUST** be responded to.

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
WEB and APPLICATION SERVERS					
1	To host the following Environments - WEB/SFTP/COMMS Application MQ / Directory Database Back-Up Virtualization ADMIN and OPCENTRE/ SYSLOG and Resource Monitoring.	-(Intel Server), Dual Socket Intel Xeon Gold 5218 Processor 16c 2.30 - 3.90 GHz 22 MB 125W DDR4 2666 Processor 32 cores per server. -Two (2) 960 GB SSD internal disk for OS. 256 GB Memory per Server Standard manageability interface. -Compute LAN I/O Modules MUST support 25G SFP28. -Storage connectivity MUST support 16Gbps minimum. -The Server system must fit in the provided rack. -Redundant Power Supply -Warranty and Support 6 Years.	**6**	**M**	
DATABASE SERVERS					
2	To host 2- Data base Servers and	Processor -Two (2) * Intel Xeon Silver 4215 2.5G, 8C/16T, 9.6GT/s, 11M Cache, Turbo, HT (85W) DDR4-2400	**3**	**M**	

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
	Trial Environment	Hypervisor – Oracle OVM or equivalent Hypervisor Certified to handle Oracle Hard Partitioning. -Two (2) 960 GB SSD internal disk for OS. 640 GB Memory per Server Standard manageability interface. - 2 x Compute LAN I/O Modules MUST support 25G SFP28. -Storage connectivity MUST support 2 x 16Gbps minimum. -The Server system must fit in the provided rack. -Redundant Power Supply -Warranty and Support 6 Years.			
NETWORK & SOFTWARE SWITCHES					
4	**Software Defined Networking (SDN) Switches, Software Defined Storage (SDS) with Network Operating System to provide: -**				
	i. Link Aggregation Switch.	-Minimum 32-port 40/100G SFP+/QSFP28 ports. -Should have at least One(1) USB Port. -Supports a minimum of 3.2 Tbps of bandwidth. -Fans: hot-swappable five(5) redundant fans. -Operating Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F). -Packet Buffer Minimum of 16 MB Supports Minimum of 3967 VLANs Minimum of RJ-45 100/1000BASE-T management port. Compatible with capable controllers and applications that take full advantage of automated, policy-based, systems-management approach Supports VLAN Hot-swappable redundant fans Operating Temperature: 0°C to 45°C (32°F to 113°F) Packet Buffer Size Minimum of 16 MB 6 Year support and Warranty	**2**	**M**	
	ii. Corporate SDN Fabric Core Switching Capability	-48-Port 25G SFP28 + 8x100G QSFP+ uplink switch, -Should have at Least One USB Port -Supports a minimum of 1.28 Tbps of bandwidth. -Fans: hot-swappable 5 redundant fans Operating	**2**	**M**	

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
	Server Access Switching Capability DMZ Server Access Switching Capability	Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F) -Packet Buffer Minimum of 16 MB -Minimum of RJ-45 100/1000BASE-T management port. -Compatible with capable controllers and applications that take full advantage of automated, policy-based, systems-management approach. -Supports VLAN. -Hot-swappable redundant fans Operating Temperature: 0°C to 45°C (32°F to 113°F) Packet Buffer Size Minimum of 16 MB. -6 Year support and Warranty.			
	iii. Storage Software Defined Storage (SDS) Fabric	-48-Port 25G SFP28 + 8x100G QSFP+ uplink switch. -Should have at Least One USB Port Supports a minimum of 1.28 Tbps of bandwidth. -Fans: hot-swappable 5 redundant fans Operating Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F). -Packet Buffer Minimum of 16 MB. -Minimum of RJ-45 100/1000BASE-T management port. -Compatible with capable controllers and applications that take full advantage of automated, policy-based, systems-management approach. -Supports VLAN. -Hot-swappable redundant fans Operating Temperature: 0°C to 45°C (32°F to 113°F) Packet Buffer Size Minimum of 16 MB -6 Year support and Warranty	**2**	**M**	
FIREWALLS					
5	Tier 1 Firewall (Must be Different OEM from DC Firewall).	2x GbE RJ45 or 2x 10G SFP+ Management Ports. 8x NIC Module Slots, with Support for 1/10/40/100G Copper/Fiber Interface. 2x 3.5" or 2x 2.5" External Bays, 2x USB 3.0, 1x RJ45 & 1x Mini USB Consoles	**2**	**M**	

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
		1+1 ATX redundant PSUs and 4x Individual Hot-swappable Cooling Fans, 1x PCI-E*16 FH/HL Geolocation IDS/IPS Intrusion detection or prevention systems Sandboxing Web proxy and URL checking Reverse proxy Web application firewall. Threat intelligence. SFP Modules 25-100 g (where applicable. Quantities aligned to solution) 6 yrs warranty & Support			
	DC Firewall (Must be different OEM from Tier 1 Firewall).	2x GbE RJ45 or 2x 10G SFP+ Management Ports 8x NIC Module Slots, with Support for 1/10/40/100G Copper/Fiber Interface 2x 3.5" or 2x 2.5" External Bays, 2x USB 3.0, 1x RJ45 & 1x Mini USB Consoles 1+1 ATX redundant PSUs and 4x Individual Hot-swappable Cooling Fans, 1x PCI-E*16 FH/HL Geolocation IDS/IPS Intrusion detection or prevention systems Sandboxing Web proxy and URL checking Reverse proxy Web application firewall Threat intelligence SFP Modules 25G-100G (Quantities aligned to proposed solution) 6yrs Warranty & support	**2**	**M**	
LOAD BALANCERS AND WEB APPLICATION FIREWALLS					
6		-Virtual Machine Based. -L4/7 Load Balancing for all TCP/UDP Server and Application health monitoring Encryption acceleration with FIPS 140-2 support. -Caching, compression, TCP multiplexing, SSL offload. -Works with most Hypervisors and IaaS Cloud Platforms.	**2**		

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
		-Full Rest API, Automation Enabled Authorization, Authentication & Single Sign-On. -Web Application Firewall and IPS – with Daily threat updates. -GSLB – Global Traffic Management Central Management, provisioning & performance insights. -Monitoring, reporting and AI-enabled proactive Remediation. -7x24 Premium Live Support. 6yrs Warranty & support			
COLLOCATION DATACENTRES - PRODUCTION SITE					
7	Collocation racks.	Must be provided by the DC. In case where the DC does not provide the racks, bidder must provide for rack to house the equipment.		**M**	
	Level of Uptime.	99.999%.			
	DC TIER.	At least **TIER III** Certification: Provide evidence of Certificate OR Uptime Institute Approvals prior to certification			
	Data Center certified for **ISO-27001.** Or in the process of getting certified	Provide Evidence of certification OR Processes procedures that conform to ISO/IEC/27001:2013			
	Data Center **MUST** be within 30 KM from CBD Nairobi.	Please share location details/Google Maps link.			
	Distance between proposed DCs.	Proposed Primary and DR data centres must be a minimum of At least 10 Kms apart.			
	DC Access	KENTRADE approved and authorized IT Staff and Support Partners must be able to access the DC Site 24X7X365, without prior notification in			

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
		case of emergencies. However, the DC MUST have Authorization and Authentication of Access with KenTrade approvals for access to environment			
	DC must be Carrier Neutral.	Provide Evidence. Listing all ISP available at the DC.			
	Data Centre Facility	Data Center MUST not be in a multi-tenant building			
	Data Centre Facility Insurance	The Data center to Provide Evidence of Insurance of the Facility and details of cover			
	Power &Cooling and Air Conditioning.	-An N+1 redundancy on core components such as the UPS, PDU's and Air Conditioning Systems. -Dual input power feed from the main power lines/supply. Redundant power systems inclusive of the UPS and PDU's, including stand by generator. Generator Uptime without Mains is at **least 72 Hours.**			
	Cross Connects can be ordered and set up in less than 24 hours.	Must be done by DC Staff and not Outsourced to 3rd Parties.			
NETWORK CONNECTIVITY					
8	Connectivity Links.	Private redundant **30 Mbps** MPLS or Point to Point link (Primary to Secondary site).		**M**	
		10 Mbps MPLS Management & Support link (Primary to KENTRADE office).			
		10 Mbps MPLS Management & Support link (Secondary to KENTRADE office).			
		Dual Redundant internet link to Primary – 30Mbps.			
		Dual Redundant internet link to Secondary – 20 Mbps.			

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
STORAGE SERVER SYSTEM					
9	Capacity.	The storage system shall be supplied with 115.2 TB of RAW SSD disk space with RAID 6 (in 8+2 configuration). Mandatory Disk Specs: SSD Disk = 20 * 3.84TB, 2.5inch 12Gb/s SAS SSD NVMe SSD = 10 * 3.84TB 2.5in Enterprise NVMe	1	**M**	
	Availability	1. Must be designed to deliver proven five 9s availability (99.999%) using Asymmetric Active-Active and Symmetric Active-Active storage processor configurations. 2. Dual redundant storage controllers with automatic failover. 3. No single point-of-failure architecture.			
	Max FAST Cache	Up to 1.2 TBs or higher.			
	Memory per Array	256 GB or higher.			
	CPU per Arra y	2 x dual-socket Intel CPUs, 32 cores per Array, 3.0 GHz.			
	System Memory/Cach e per Array	256 GB or higher.			
	Total Cache	Up to 1.39 TBs or above.			
	Storage type	Up to 1.39 TBs Unified SAN XT Hybrid (Support flash and HDD storage).			
	OS Support	It must support heterogeneous client operating systems (on both block and file) which include all popular flavours of Windows, Linux and virtualization hypervisors like VMWare, Xen, Hyper-V etc.			
	Efficiency and Service Featur es	Must maximize efficiency through thin provisioning, Block/File Compression and Block/File De-Duplication.			

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
	Performance	a) Should be capable of prioritizing host I/O requests over back-end I/O array for better serviceability of servers. b) Storage system must support known virtualization vendors with storage awareness and array offloading features using OD, VASA and VAAI technologies.			
	Cache	a) SSD Caching - The system must be able to dynamically allocate, expand, and utilize read/write cache in every storage processor with the ability to utilize SLC SSD disk drives for caching. b) System must have write cache persistence even during controller failure event. In such event, cache contents must be preserved indefinitely.			
	Data Integrity	System must ensure data integrity is maintain ed at all times using dedicated cache mirroring channels, write journaling, proactive sparing, and automatic high-speed failover to ensure zero data loss. b) Storage system must be capable of checki ng disk level errors (disk sniffing) as opposed to LUN being LUN specific to detect areas of d isk that are unassigned but might be faulty.			
	SAN Hosts	1024			
	Number of Pools	30			
	Drive rebalancing and spares	Array must support bus rebalancing for improved performance with Portable drive feature where disk drives can be moved to different enclosures without causing data loss or RAID reconfiguration Array must have the op			

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
		timal quantity of global hot spare disks as recommended by the manufacturer (in addition to the usable capacity) that storage-admin customizable with Parallel RAID rebuild and Permanent Sparing technology			
	RAID	The storage **MUST** provide RAID 0/1/10/5/6 and allow transparent migrations between different RAID configurations. Disks should be available while zeroing.			
	Support	Six (6) years manufacturer's 24x7 support.			
	Power Supply	Dual redundant power supplies.			
	I/O modules "Integration and Configuration" Configuration	"10GbE BaseT, 16Gb FC, 25GbE Opt, 10GbE Opt, SAS BE" Logical Configuration of access network, IP Addresses, Virtualization, storage setup etc. per KenTrade unique requirements.			
	Migration	Must provide services for Migration of current Workloads to new infrastructure.			
	Protocols	c) Supports Multiple Protocols d) The storage must natively support NFSv3, NFSv4, NFSv4.1; CIFS (SMB 1), SMB 2, SMB 3.0, SMB 3.02, and SMB 3.1.1; FTP and SFTP; FC, iSCSI and VMware Virtual Volumes (VVols) 2.0 and MPFS and able to swap connectivity modules to allow new or different protocols.			
	Warranty	6 Years Standard Manufactures Warranty Repair: 5x10 HW-Only, 5x10 NBD Onsite.			
	End-of-Life/ End-of-Support	The Storage Device should **NOT BE WITHIN Four (4) years** of the end of life cycle.			

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
	Storage Solution Software Specifications				
	Management	-Allows storage administrators to make quick provisioning decisions, generate reports and ensure the health of all systems in the environment offers unified storage for applications that read and write data over block- or file-access protocols, in storage configurations that range from high-speed flash, to lower- priced spinning media, to cloud- based object storage. -Provide a simple, intuitive, customizable cross platform tool for managing storage environments -Provide customizable dashboards. -Web- enabled for remote management of the stora ge environment. - Allow for access through either the web bro wser, client or server to manage the storage envir onment. Modular in architecture.			
	Domain creation	Allow creation of storage domains with single sign- on (single authentication). Support for multiple domains in a storage environment.			

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
	Dashboard	Provide a dashboard with an aggregated view of the storage environment. The dashboard should show: - • Systems by severity • Alerts by severity • Capacity information • Systems with the least capacity • System dashboard with aggregated view of a selected system			
	Hardware views	-Provides graphical depictions of the back-end components. They provide an understanding of back-end architecture and lay-out. -Track the system and state information about various components. -When a back-end component fails, is removed or is not working, a fault displays next to the faulted component.			
	High availability pairs	Configure cluster nodes in high availability (HA)			
	Logical ports	Support creation of logical ports to manage network traffic or VLANs. An interface group can be single-mode, multimode, or dynamic multimode.			
	Support for Client protocols	Supports all major industry-standard network technologies. Key technologies include IP spaces, DNS load balancing, SNMP traps, broadcast domains, failover groups, and subnets.			
	Client protocols	Supports all major industry-standard client protocols: NFS, SMB/CIFS, FC, FCoE, iSCSI, and NVMe/FC.			
	Disks and aggregates	Supports use aggregates to isolate workloads with different performance demands, to tier data with different access patterns, or to segregate data for regulatory purposes.			

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
	Aggregates and RAID groups.	Supports creation of aggregates consisting of one or more RAID groups.			
	Root-data partitioning.	Provide support for root-data partitioning to reduce the parity tax by apportioning the root aggregate across disk partitions, reserving one small partition on each disk as the root partition and one large partition for data.			
	Logical containers	Supports Volumes, files, and LUNs.			
	Storage virtualization	Support use of storage virtual machines (SVMs) to serve data to clients and hosts.			
	Namespaces and junction points	Support for NAS namespace and junction points.			
	Path failover	Support management of path failover.			
	Load Balancing	Supports maintenance of performance of workloads when it begins to be affected by latency when the amount of work on a node exceeds the available resources. This is managed by increasing the available resources (upgrading disks or CPU), or by reducing load (moving volumes or LUNs to different nodes as needed).			
	QoS	Support use storage technology for quality of service (QoS) to guarantee that performance of critical workloads is not degraded by competing workloads.			
	Replication	Support replication technologies to enable disaste r recovery (DR) and data archiving.			
	Snapshots	Support creation of snapshot copies which are set up through the snapshot policy.			
	Mirror	Support Mirroring disaster recovery technology.			
	Archiving	Support an archiving technology, designed for disk-to-disk Snapshot copy replication for standards			

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
		compliance and other governance-related purposes.			
	Cluster configurations	Support Cluster continuous availability.			
	Thin provisioning	Supports creation of thin-provisioned volume or LUN is one for which storage is not reserved in advance.			
	Deduplication	Supports Deduplication to reduce the amount of physical storage required for a volume by discarding duplicate Blocks and replacing them with references to a single shared block.			
	Compression	Supports Compression to reduce the amount of physical storage required for a volume by combining data blocks in compression groups, eac h of which is stored as a single block.			
	Client authentication and authorizat ion	Supports the authentication of a client machine. And user by verifying their identities with a trusted source.			
	Administrator authentication and RBAC	Supports the Role-Based Access Control (RBAC).			
	Virus scanning	The system to have an integrated antivirus functionality on the storage system to protect data from being compromised by viruses or other malicious code.			
	Encryption	Supports both software- and hardware-based encryption technologies for ensuring that data at rest cannot be read if the storage medium is repurposed, returned, misplaced, or stolen.			
	WORM storage	Is integrated with a high-performance compliance solution that support write once, read many (WORM) storage to retain critical files in unmodified form for regulatory and governance purposes.			

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
	Application aware data management.	- Application aware data management enables you t o describe the application that you want to -Deploy over system in terms of the application, rather than in storage terms.			
VIRTUALIZATION					
10	Provide 6 years licensing.	6 Servers with 2 sockets each giving a total of 12 Sockets		M	
	Virtualization Software Solution.	vii. **Virtualization Software Solution** Virtualization software shall provide a Virtualization layer that sits directly on the bare metal server hardware with no dependence on a general-purpose OS for greater reliability and security. viii. The solution shall allow for creation of multiple virtual machines to run multiple operating systems such as windows, Linux, Unix, etc in a single physical hardware. ix. The solution shall enable you to run your workloads on top of multiple virtual machines to fully utilize the computing resource and free from multiple physical hardware. x. Virtualization software shall have the capability to create Virtual machines with up to 128 virtual processors and 4 TB virtual RAM in virtual machines for all the guest operating system supported by the hypervisor.			
	Virtualization Software Solution	xi. Virtualization software shall support live Virtual Machine migration from one physical host to another and between virtual switches with enhanced CPU compatibility and without the need for shared storage xii. Virtualization software shall provide for live migration of Virtual machines files from one storage array to another without any downturn.			

S/ No	Item Description	Minimum Specification	Qty	Score	Bidders Response
	Migration	Migrations of the existing services from the current infrastructure to the new Infrastructure.			
	Training	Training of the ICT technical team on the virtualization and storage solutions provided. At least 4 staff to Certification Level			
	Service Level Agreement	6-year service level agreement to support the servers, virtualization software and storage.			

SECONDARY SITE TECHNICAL REQUIREMENTS

S/ No	Item	Description	Qty	Bidder Response	Score
SERVERS					
1	**To Host the following Environments;** WEB/SFTP/COMMS Application MQ/DIRECTORY Database BACKUP Virtualization ADMIN and OPCENTRE/SYSLOG and Resource Monitoring.	-Dual Socket Intel Xeon Gold 5218 ----Processor 16c 2.30 - 3.90 GHz 22 MB 125W DDR4 2666 Processor 32 cores per server -Two (2) 960 GB SSD internal disk for OS. -256 GB Memory per Server. -Standard manageability interface. -Compute LAN I/O Modules MUST support 25G SFP28. -Storage connectivity MUST support 16Gbps minimum. -The Server system must fit in the provided rack Redundant Power supply. -Warranty and Support 6Years.	**8**		M
REPLICATION & BACKUP AS A SERVICE					
2	In Country Low Latency Backup as a Service. 50TB Disk-to-Disk Backup.	**6 years** subscription. Industry-leading backup & replication solution. Bidder must provide all the licenses & infrastructure required for Primary to DR replication and relevant backup software.	1		M

		-Fast, reliable, application-aware, image-based backups. -Unlimited capacity and cost savings for long-term data retention on object storage. -Enterprise application support for SAP HANA and Oracle RMAN. -Leverage seriously powerful NAS Backup with multiple options for faster data processing and flexible recovery options. -Site to Site Replication (PR to DR) **Intelligent recovery** -Mass instant restores with Wholescale VM Instant Recovery. -Advanced replication and failover for Disaster Recovery Monitoring and analytics -24x7 real-time environment monitoring, reporting and alerting. -Built-in intelligence to identify and help resolve common misconfigurations and backup problems. -Effective capacity planning and forecasting.			
	Location	The Backup infrastructure should be located in the DR site datacentre for ease of Data transfer between backup and DR/PR environments. Backups shall be performed in the following order: **Primary > DR > Backup**			
NETWORK SWITCHES					
Software Defined Networking (SDN) Switches, Software Defined Storage (SDS) with Network Operating System to provide:					
3	1. Link aggregation Switch.	Minimum 32-port 40/100G SFP+/QSFP28 ports -Should have at Least One USB Port. -Supports a minimum of 3.2 Tbps of bandwidth. -Fans: hot-swappable 5 redundant fans. -Operating Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F). -Packet Buffer Minimum of 16 MB Supports Minimum of 3967 VLANs. -Minimum of RJ-45 100/1000BASE-T management port. -Compatible with capable controllers and	**2**		M

		applications that take full advantage of automated, policy-based, systems-management approach. -Supports VLAN. Hot-swappable redundant fans. -Operating Temperature: 0°C to 45°C (32°F to 113°F). Packet Buffer Size Minimum of 16 MB -6 Year support and Warranty.			
	ii. Corporate SDN Fabric Core Switching Capability. Server Access Switching Capability DMZ Server Access Switching Capability	-48-Port 25G SFP28 + 8x100G QSFP+ uplink switch, should have at Least One USB Port. -Supports a minimum of 1.28 Tbps of bandwidth -Fans: hot-swappable 5 redundant fans Operating Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F) -Packet Buffer Minimum of 16 MB. -Minimum of RJ-45 100/1000BASE-T management port Compatible with capable controllers and applications that take full advantage of automated, policy-based, systems-management approach. -Supports VLAN. -Hot-swappable redundant fans Operating Temperature: 0°C to 45°C (32°F to 113°F) Packet Buffer Size Minimum of 16 MB -6 Year support and Warranty.	**2**		**M**
	iii. Storage Software Defined Storage (SDN) Fabric	-48-Port 25G SFP28 + 8x100G QSFP+ uplink switch, -Should have at Least One USB Port. Supports a minimum of 1.28 Tbps of bandwidth. -Fans: hot-swappable 5 redundant fans. -Operating Temperature: 0°C to 45°C or (32°F to 113°F) Storage Temperature: -40°C to 70°C (-40°F to 158°F). -Packet Buffer Minimum of 16 MB -Minimum of RJ-45 100/1000BASE-T management port -Compatible with capable controllers and applications that take full advantage of automated, policy-based, systems-management approach. -Supports VLAN. -Hot-swappable redundant fans -Operating Temperature: 0°C to 45°C (32°F to 113°F)	**2**		**M**

		Packet Buffer Size Minimum of 16 MB -6 Year support and Warranty.			
FIREWALLS					
4	Tier 1 Firewall (Must be Different OEM from DC Firewall).	2x GbE RJ45 or 2x 10G SFP+ Management Ports. 8x NIC Module Slots, with Support for 1/10/40/100G Copper/Fiber Interface. 2x 3.5" or 2x 2.5" External Bays, 2x USB 3.0, 1x RJ45 & 1x Mini USB Consoles 1+1 ATX redundant PSUs and 4x Individual Hot-swappable Cooling Fans, 1x PCI-E*16 FH/HL Geolocation IDS/IPS Intrusion detection or prevention systems Sandboxing Web proxy and URL checking Reverse proxy Web application firewall. Threat intelligence. The device must support HA- Active -Active as well active Passive 6yrs Warranty & support	**2**		**M**
	DC Firewall (Must be different OEM from Tier 1 Firewall).	2x GbE RJ45 or 2x 10G SFP+ Management Ports 8x NIC Module Slots, with Support for 1/10/40/100G Copper/Fiber Interface 2x 3.5" or 2x 2.5" External Bays, 2x USB 3.0, 1x RJ45 & 1x Mini USB Consoles 1+1 ATX redundant PSUs and 4x Individual Hot-swappable Cooling Fans, 1x PCI-E*16 FH/HL Geolocation IDS/IPS Intrusion detection or prevention systems Sandboxing Web proxy and URL checking Reverse proxy Web application firewall Threat intelligence The device must support HA- Active -Active as well active Passive 25G SFP - 100G SFP Modules (Quantity depends on Solution design) 6yrs Warranty & support	**2**		M
LOAD BALANCERS					

5	Load Balancers	**Virtual Machine Based** -L4/7 Load Balancing for all TCP/UDP Server and Application health monitoring. -Encryption acceleration with FIPS 140-2 support. -Caching, Compression, TCP Multiplexing, SSL Offload Works with most Hypervisors and IaaS Cloud Platforms. -Full Rest API, Automation Enabled Authorization, Authentication & Single Sign On. -Web Application Firewall and IPS – with Daily Threat Updates GSLB – Global Traffic Management Central Management, Provisioning & Performance Insights -Monitoring, Reporting and AI-enabled proactive Remediation -7x24 Premium Live Support. -The solution Must support HA- Active -Active as well active Passive 6yrs Warranty & support	**2**		
COLOCATION DATACENTRES - SECONDARY SITE					
6	Collocation racks	Must be provided by the DC. In case where the DC does not provide the racks, bidder must provide for rack to house the equipment.	**1**		M
	Level of Uptime	99.999%.			
	DC TIER	At least **TIER III** Certification: Provide evidence of Certificate OR Uptime Institute Approvals prior to certification			
	Data Center Certified for ISO 27001	Provide Evidence of certification OR Processes procedures that conform to ISO/IEC/27001:2013			
	Data Center MUST be within 30 KM from CBD Nairobi	Please share location details/Google Maps link.			
	Distance between proposed DCs	Proposed Primary and DR data centres must be a minimum of 10Kms apart.			
	Data Centre Facility	Data Center MUST not be in a multi-tenant building			
	DC Access	KENTRADE approved and authorized IT Staff and Support Partners must be able to access the DC			

		Site 24X7X365, without prior notification in case of emergencies. However, the DC MUST have Authorization and Authentication of Access with KenTrade approvals for access to environment			
	DC must be Carrier Neutral	Provide Evidence. Listing all ISP available at the DC.			
	Data Centre Facility Insurance	The Data center to Provide Evidence of Insurance of the Facility			
	Power & Cooling	An N+1 redundancy on core components such as the UPS, PDU's and Air Conditioning Systems. Dual Input power feed from the main power lines/supply. Redundant power systems inclusive of the UPS and PDU's, including standby generator. Generator Uptime without Mains = at least 72 Hours.			
	Cross Connects can be ordered and set up in less than 24 Hours.	Must be done by DC Staff and not Outsourced to 3rd Parties			
STORAGE SERVER SYSTEM					
7	Capacity.	The storage system shall be supplied with 115.2 TB of RAW SSD disk space with RAID 6 (in 8+2 configuration). Mandatory Disk Specs: SSD Disk = 20 * 3.84TB, 2.5inch 12Gb/s SAS SSD NVMe SSD = 10 * 3.84TB 2.5in Enterprise NVMe			M
	Availability	1. Must be designed to deliver Proven Five 9s availability (99.999%) using Asymmetric. Active-active and Symmetric Active-Active storage processor configurations. 2. Dual redundant storage controllers with automatic failover. 3. No single point-of-failure architecture.			
	Max FAST Cache	Up to 1.2 TBs.			
	Memory per Array.	256 GB			
	CPU per Array	2 x dual socket Intel CPUs, 32 cores per Array, 3.0 GHz.			

	System Memory/Cache per Array	256 GB			
	Total Cache	Up to 1.39 TBs			
	Storage type	Up to 1.39 TBs Unified SAN XT Hybrid (Support flash and HDD storage)			
	OS Support	It must support heterogeneous client operating systems (on both block and file) which include all popular flavours of Windows, Linux and virtualization hypervisors like VMWare, Xen, Hyper-V etc.			
	Efficiency and Service Features	Must maximize efficiency through thin provisioning, Block/File Compression and Block/File De-Duplication.			
	Performance	a) Should be capable of prioritizing host I/O requests over back-end I/O array for better serviceability of servers. b) Storage system must support known virtualization vendors with storage awareness and array offloading features using ODX, VASA, and VAAI technologies.			
	Cache	a) SSD Caching - The system must be able to dynamically allocate, expand, and utilize read/write cache in every storage processor with the ability to utilize SLC SSD disk drives for caching. b) System must have write cache persistence ev en during controller failure event. In such event, cache contents must be preserved indefinitely			
	Data Integrity	a) System must ensure data integrity is maintained at all times using dedicated cache mirroring channels, write journaling, proactive sparing, and automatic high-speed failover to ensure zero data loss. b) Storage system must be capable of checking disk level errors (disk sniffing) as opposed to LUN being LUN specific to detect areas of disk that are unassigned but might be faulty.			

	SAN Hosts	1024			
	No. of Pools	30			
	Drive rebalancing and spares.	a) Array must support bus rebalancing for improved performance with portable drive feature where disk drives can be moved to different enclosures without causing data loss or RAID reconfiguration. b) Array must have the optimal quantity of global hot spare disks as recommended by the manufacturer (in addition to the usable capacity) that storage-admin customizable with Parallel RAID rebuild and Permanent Sparing technology.			
	RAID	The storage **MUST** provide RAID 0/1/10/5/6 and allow transparent migrations between different RAID configurations. Disks should be available while zeroing.			
	Support	Three (6) years manufacturer's 24x7 support.			
	Power Supply	Dual redundant power supplies			
	I/O modules "Integration and Configuration" Configuration	"10GbE BaseT, 16Gb FC, 25GbE Opt, 10GbE Opt, SAS BE" Logical Configuration of access network, IP Addresses, Virtualization, storage setup etc. per KenTrade unique requirements.			
	Migration	Must provide services for Migration of current Workloads to new infrastructure.			
	Protocols	a) Supports Multiple Protocols b) The storage must natively support NFSv3, NFSv4, NFSv4.1; CIFS (SMB 1), SMB 2, SMB 3.0, SMB 3.02, and SMB 3.1.1; FTP and SFTP; FC, iSCSI and VMware Virtual Volumes(VVols) 2.0 and MPFS and able to swap			

		connectivity modules to allow new or different protocols.			
	Warranty	6 Years Standard Manufactures Warranty Repair: 5x10 HW-Only, 5x10 NBD Onsite			
	End-of-Life/End	The Storage Device should **NOT BE WITHIN Four (4) years** of the end of life cycle.			
	Storage Solution Software Specifications				
	Management	-Allows storage administrators to make quick provisioning decisions, generate reports and e nsure the health of all systems in the Environment offers unified storage for applications that read and write data over block- or file access protocols, in storage configurations that range from high-speed flash, to lower-priced spinning media, to cloud-based object storage. Provide a simple, intuitive, customizable cross platform tool for managing storage environments -Provide customizable dashboards Web-enabled for remote management of the storage environment. Allow for access through either the web browser, client or server to manage the storage environment. Modular in architecture.			
	Domain creation	Allow creation of storage domains with single sign-on (single authentication). Support for multiple domains in a storage environment.			

	Dashboard	Provide a dashboard with an aggregated vie w of the storage environment. The dashboard should show: • Systems by severity • Alerts by severity • Capacity information • Systems with the least capacity • System dashboard with aggregated view of a selected system			
	Hardware Views	"Provides graphical depictions of the back-end components. They provide an understanding of back-end architecture and lay-out" Track the system and state information about various components When a back- end component fails, is removed or is not working a fault displays next to the faulted component.			
	High availability pairs.	Configure cluster nodes in high-availability (HA).			
	Logical ports	Support creation of logical ports to manage networ k traffic or VLANs. An interface group can be single-mode, multimode, or dynamic multimode.			
	Support for	Supports all major industry-standard network technologies. Key technologies include IP spaces, DNS load balancing, SNMP traps, broadcast domains, failover groups and subnets.			
	Client protocols	supports all major industry-standard client protocols: NFS, SMB/CIFS, FC, FCoE, iSCSI, and NVMe/FC.			

	Disks and aggregates.	Supports use aggregates to isolate workloads with different performance demands, to tier data with different access patterns, or to segregate data for regulatory purposes.			
	Aggregates and RAID groups.	Supports creation of aggregates consisting of one or more RAID groups.			
	Root-data partitioning.	Provide support for root data partitioning to reduce the parity tax by apportioning the root aggregate across disk partitions, reserving one small partition on each disk as the root partition and one large partition for data.			
	Logical containers.	Supports Volumes, files, and LUNs			
	Storage virtualization.	Support use of storage virtual machines (SVMs) to serve data to clients and hosts.			
	Namespaces and junction points.	Support for NAS namespace and junction points.			
	Path failover	Support management of path failover.			
	Load Balancing	Supports maintenance of performance of workloads when it begins to be affected by latency when the amount of work on a node exceeds the available resources. This is managed by increasing the available resources (upgrading disks or CPU), or by reducing load (moving volumes or LUNs to different nodes as needed).			
	QoS	Support use storage technology for quality of service (QoS) to guarantee that performance of critical workloads is not degraded by competing workload.			
	Replication	Support replication technologies to enable disaster recovery (DR) and data archiving.			
	Snapshots	Support creation of snapshot copies which are set up through the snapshot policy.			
	Mirror	Support Mirroring disaster recovery technology.			

	Archiving	Support an archiving technology, designed for disk-to-disk snapshot copy replication for standards compliance and other governance-related purposes.			
	Cluster configurations	Support Cluster continuous availability.			
	Thin provisioning	Supports creation of thin-provisioned volume or LUN is one for which storage is not reserved in advance.			
	Deduplication	Supports deduplication to reduce the amount of physical storage required for a volume by discardin g duplicate blocks and replacing them with references to a single shared block.			
	Compression	Supports compression to reduce the amount of physical storage required for a volume by combining data blocks in compression groups, each of which is stored as a single block.			
	Client authentication and authorization	Supports the authentication of a client machine and user by verifying their identities with a trusted source.			
	Administrator authentication and RBAC.	Supports the Role-Based Access Control (RBAC).			
	Virus scanning	The system to have an integrated antivirus functionality on the storage system to protect data from being compromised by viruses or other malicious code.			
	Encryption	Supports both software- and hardware-based encryption technologies for ensuring that data at rest cannot be read if the storage medium is repurposed, returned, misplaced, or stolen.			
	WORM storage	Is integrated with a high-performance compliance solution that support write once, read many (WORM) storage to retain critical files in			

		unmodified form for regulatory and governance purposes.			
	Application aware data management	Application aware data management enables you to describe the application that you want to deploy over system in terms of the application, rather than in storage terms.			
VIRTUALIZATION					
8	Provide 6 years licensing.	8 Servers each with 2 Sockets giving a total of 16 Sockets.			
	Virtualization Software Solution.	a)**Virtualization Software Solution** Virtualization software shall provide a Virtualization layer that sits directly on the bare metal server hardware with no dependence on a general-purpose OS for greater reliability and security. b) The solution shall allow for creation of multiple virtual machines to run multiple operating systems such as windows, Linux, Unix, etc in a single physical hardware. c) The solution shall enable you to run your workloads on top of multiple virtual machines to fully utilize the computing resource and free from multiple physical hardware. d) Virtualization software shall have the capability to create Virtual machines with up to 128 virtual processors and 4 TB virtual RAM in virtual machines for all the guest operating system supported by the Hyper-V. e) Virtualization software shall support live Virtual Machine migration from one physical host to another and between virtual switches with enhanced CPU compatibility and without the need for shared storage. f) Virtualization software shall provide for live			

		migration of Virtual machines files from one storage array to another without any Virtual			
	Migration	Migrations of the existing services from the current infrastructure to the new Infrastructure.			
	Training	Training of the ICT technical team on ten (10) on the Server, network, security, virtualization and storage solutions provided.			
	Service Level Agreement (SLA).	6-year service level agreement to support the servers, virtualization software and storage.			

B (ii)VENDOR EVALUATION

The maximum score under **Vendor evaluation is 80 marks**. Bidders Must score **at least 75 marks** out of the **80** under this section to proceed to the next stage (Due Diligence).

		Max. Score	Evaluated Score
Reference Sites	Proof of implementation of an enterprise level solution for a government / Corporate institution in Kenya in the last 3 years. (**SAME** Magnitude or higher in **Cost and Scope-)** (Bidder **MUST** Attach completion certificate. Reachable Current Contacts of Reference Persons (Official E-mail address and Telephone) and Value of Project) at **least 3 Sites. (3 Marks-1 for each site)** ☐ 3 sites completed--------12 Marks ☐ 2 sites completed--------8 Marks ☐ Less than 2 sites completed-----0 Mark	**15**	
Technical Competence for the Assignment	Skills, Experience and certification for proposed solution: The Bidder Must have Competent experienced Engineers certified to high level of the proposed solutions. • At least 5 CV's of Implementation Team with Project Manager having Bachelor's degree level or Above **(5 Marks – (1 Mark each).** • Above 20 years Cumulative Experience of the Team – **(7 Mark).** -Between 5-6 years cumulative experience**-(5marks)** **-**less than 5 years cumulative experience-**(0 marks)** • At least 2 Expert/Architect level certified Engineers -Vendor Specific Certification for the Solutions proposed as follows:	**29**	

	vii. Network- at least 1 CCIE R& S or equivalent– **(5 Marks)** viii. Security- 2 Architect or Vendor specific Equivalent- **(4Marks)** ix. Operating System – 2 Certified Engineers **(2 Marks)** x. Storage, - 2 Certified Engineers **(2 Marks)** xi. Replication, - 2 certified Engineers **(2 Marks)** xii. Virtualization- 2 certified Engineers **(2Marks)**		
Project Management IT Service Management,	Given the critical nature of KenTrade IT production environment, the partner should have project resources who are trained and certified in the following areas: - ▪ Project Management – Prince 2, PMP or related Qualification for at least one Team Member **(1 Marks).** ▪ IT Change management: At least 1 ITIL certified team member **(1 Marks).** Additionally, the bidder must present the following: - • Project Plan with Clear Tasks and Activities defined with Timelines and Milestone in a Gannt chart **(4 Marks).** ▪ Project Team Organogram -Clearly indicating the Escalation Matrix **(2 Marks).** ▪ Proof of Helpdesk (IT Service Desk) - Reachable on Both Phone and E-mail **(2 Marks).**	**10**	
Technical Design Proposal	▪ Comprehensive Technical Design Proposal, with Diagrammatic illustrations of the Logical and Physical design Proposals of the Solution	**16**	

B (iii) Due Diligence/Post Qualification (20 marks)

The maximum score under this stage of evaluation is **20 marks**. Bidders must score **at least 17 out of the 20marks** to proceed to the next stage.

Due diligence will be undertaken through site visits to the bidders' reference sites in order to confirm the authenticity of the sites and the scope of work done in relation this project amongst other criteria stipulated below. At least two sites will be visited (for each site 10 marks). The scores will be spread out as follows per site: -

No.	Criteria	Maximum Score
1.	Authenticity of the site provided. **NB: If authenticity for any provided site is established to be false, the bidder will score zero for Due Diligence**	**Mandatory**
2.	Proof of the scope of work carried out. The aspect of replication between sites must be demonstrated.	**4**
3.	Proof of completion of work on site. **NB: If work has not been completed at any of the reference sites provided, the bidder will score zero for Due Diligence**	**2**
4.	Team involved in the implementation. (Relevant qualification to be considered)	**2**
5.	Client satisfaction on the deployment and post implementation support. Project timelines met, deliverables and general performance of the contractor will be examined.	**2**
	Total	**10**

D. FINANCIAL EVALUATION

The bidder with the lowest financial quote shall be recommended for award of this tender provided they have met all Mandatory requirements in Preliminary Evaluation and Compliance to technical specifications, and scored a minimum of **91 marks** in both Vendor evaluation and due diligence as per the set criteria.

OVERALL EVALUATION CRITERIA

The tender evaluation criterion is weighted as follows: -

No.	Evaluation Stage	Maximum Score	Cut-off (Minimum Required)
1.	Preliminary	Mandatory	Mandatory
2.	Compliance to Technical Specification Vendor Evaluation Due Diligence	Mandatory 70 20	Mandatory 65 17
3	Liquidity Ratios (Current Ratio of above 1:2 = 10 marks) (relevant ratios)	10	9
	Totals	**100 %**	**91%**

KenTrade may engage the bidders in competitive negotiations in line with the requirements of Section 131 of the PPADA 2015 and Section 100 of the PPADR 2020.

Both CAPEX and OPEX of this solution shall be spread across the six-year period of the Contract. Bidders MUST provide a quotation detailing the total cost of the solution for both sites and the proposed annual payment for 6years. (Quotation as per attached Price Schedule)

At the end of the 6 years, the bidder will own the equipment and KenTrade may negotiate on newer renewal extension terms.

Price Schedule

					Annual Subscriptions (Kshs)					
Item	**PR**	**DR**	**Unit Price**	**Total Price**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Web and Applications Servers	6	8								
Database Servers and Trial Environment with Oracle Virtual Machine or equivalent Oracle approved Hard Partitioning hypervisor	3	0								
In-country Low Latency Backup as a Service 50TB Disk-to-Disk Backup with Site to Site Replication	0	1								
Tier 1 Firewall (Must be Different OEM from DC Firewall).	2	2								
DC Firewall (Must be different OEM from Tier 1 Firewall).	2	2								
Link Aggregation Switches	2	2								
Corporate SDN Fabric Switches Core Switching Capability Server Access Switching Capability DMZ Server Access Switching Capability	2	2								
Storage Software Defined Storage (SDS) Fabric	2	2								
Storage Systems (115.2 TB per site)	1	1								
Tier 1 Firewall (Must be Different OEM from DC Firewall).	2	2								
DC Firewall (Must be different OEM from Tier 1 Firewall).	2	2								
COLLOCATION DATACENTRES (Months)	72	72								
Redundant 30 Mbps MPLS link (Primary to Secondary site).	1	0								
10 Mbps MPLS Management & Support link (Primary to KENTRADE office).	1	0								
10 Mbps PLS Management & Support link (Secondary to KENTRADE office).	0	1								
Dual Redundant internet link to Primary – 30Mbps.	1	0								

Dual Redundant internet link to Secondary – 20 Mbps.	0	1								
Virtualization Software (No. of processor Sockets)	12	16								
Implementation & Migration Services	1	1								
Training for 5 Kentrade Staff (Server, Storage, Network, Security)	4	4								
Annual Service level agreement to support ALL components for Primary & DR for 6Years	6	6								
TOTAL SOLUTION COST (FOR THE SIX YEAR PERIOD)										

SECTION VII- STANDARD FORMS

Notes on standard forms

1. The tenderer shall complete and submit with its tender the form of tender and price schedules pursuant to instructions to tenderers clause 9 and in accordance with the requirements included in the special conditions of contract.

2. When requested by the appendix to the instructions to tenderers, the tenderer should provide the tender security, either in the form included herein or in another form acceptable to the procuring entity pursuant to instructions to tenderers clause 12.3

3. The contract form, the price schedules and the schedule of requirements shall be deemed to form part of the contract and should be modifies accordingly at the time of contract award to incorporate corrections or modifications agreed by the tenderer and the procuring entity in accordance with the instructions to tenderers or general conditions of contract.

4. The performance security and bank guarantee for advance payment forms should not be completed by the tenderers at the time of tender preparation. Only the successful tenderer will be required to provide performance/entity and bank guarantee for advance payment forms in accordance with the forms indicated herein or in another form acceptable to the procuring entity and pursuant to the – conditions of contract.

5. The principal's or manufacturer's authorization form should be completed by the principal or the manufacturer, as appropriate in accordance with the tender documents.

SECTION VI - STANDARD FORMS

1. Form of tender
2. Price schedules
3. Contract form
4. Confidential Questionnaire form
5. Tender security form
6. Performance security form
7. Bank guarantee for advance payment
8. Declaration form

FORM OF TENDER

Date_____
Tender No._____

To……..

……..

[Name and address of procuring entity]

Gentlemen and/or Ladies:

1. Having examined the tender documents including Addenda Nos.. *[insert numbers,* the of which is hereby duly acknowledged, wed, the undersigned, offer to provide. *[description of services]* in conformity with the said tender documents for the sum of . *[total tender amount in words and figures]* or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Tender.

2. We undertake, if our Tender is accepted, to provide the services in accordance with the services schedule specified in the Schedule of Requirements.

3. If our Tender is accepted, we will obtain the tender guarantee in a sum equivalent to _____ percent of the Contract Price for the due performance of the Contract, in the form prescribed by (Procuring entity).

4. We agree to abide by this Tender for a period of *[number]* days from the date fixed for tender opening of the Instructions to tenderers, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

5. Until a formal Contract is prepared and executed, this Tender, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

Dated this _____ day of_____ 20
[signature] [In the capacity of]
Duly authorized to sign tender for and on behalf of_____

PRICE SCHEDULE OF SERVICES

Name of Tenderer _____Tender Number_____. Page ____of _____.

1	2	3	4	5	6	7
Item	**Description**	**Quantity & quality**	**Duration**	**Unit Price**	**Total Price** EXW per item (cols. 4x5)	**Unit Price of other incidental services payable**

Signature of tenderer _____

Note: In case of discrepancy between unit price and total, the unit price shall prevail.

CONTRACT FORM

THIS AGREEMENT made the ___day of _____20____between……[name of procurement entity] of …….[country of Procurement entity](hereinafter called "the Procuring entity") of the one part and ……[name of tenderer] of …….[city and country of tenderer](hereinafter called "the tenderer") of the other part.

WHEREAS the procuring entity invited tenders for certain materials and spares. Viz……..[brief description of materials and spares] and has accepted a tender by the tenderer for the supply of those materials and spares in the spares in the sum of ……[contract price in words and figures]

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

    (a) the Tender Form and the Price Schedule submitted by the tenderer;
    (b) the Schedule of Requirements;
    (c) the Technical Specifications;
    (d) the General Conditions of Contract;
    (e) the Special Conditions of Contract; and
    (f) the Procuring entity's Notification of Award.

3. In consideration of the payments to be made by the Procuring entity to the tenderer as hereinafter mentioned, the tenderer hereby covenants with the Procuring entity to provide the materials and spares and to remedy defects therein in conformity in all respects with the provisions of the Contract

4. The Procuring entity hereby covenants to pay the tenderer in consideration of the provision of the materials and spares and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by_____the _____(for the Procuring entity)

Signed, sealed, delivered by_____the _____(for the tenderer)

in the presence of_____.

CONFIDENTIAL BUSINESS QUESTIONNAIRE

You are requested to give the particulars indicated in Part 1 and either Part 2 (a), 2(b) or 2(c) whichever applied to your type of business.

You are advised that it is a serious offence to give false information on this form.

Part 1 General

Business Name .....
Location of Business Premises .....
Plot No,.....Street/Road .....
Postal address ..... Tel No. .....Fax Email.....
Nature of Business .....
Registration Certificate No. .....
Maximum value of business which you can handle at any one time – Kshs. .....
Name of your bankers.....
Branch .....

	Part 2 (a) – Sole Proprietor Your name in full…….Age……. Nationality……Country of Origin…….. Citizenship details ……..
	Part 2 (b) – Partnership Given details of partners as follows Name Nationality Citizenship details Shares 1. …… 2. …… 3. …… 4. ……
	Part 2 (c) – Registered Company Private or Public State the nominal and issued capital of company Nominal Kshs. Issued Kshs. Given details of all directors as follows Name Nationality Citizenship details Shares 1. …… 2. …… 3. …… 4. ……
	Date…….Signature of Candidate……..

TENDER SECURITY FORM

Whereas ……..[name of the tenderer]

(hereinafter called "the tenderer")has submitted its tender dated……..[date of submission of tender] for the provision of ……..

[name and/or description of the services]

(hereinafter called "the Tenderer")……..

KNOW ALL PEOPLE by these presents that WE……

Of……having registered office at

[name of procuring entity](hereinafter called "the Bank")are bound unto……

[name of procuring entity](hereinafter called "the procuring entity") in the sum of ……..

for which payment well and truly to be made to the said Procuring entity, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this_____ day of 20_____.

THE CONDITIONS of this obligation are:
1. If the tenderer withdraws its Tender during the period of tender validity specified by the tenderer on the Tender Form; or
2. If the tenderer, having been notified of the acceptance of its Tender by the Procuring entity during the period of tender validity:

(a) fails or refuses to execute the Contract Form, if required; or
(b) fails or refuses to furnish the performance security, in accordance with the instructions to tenderers;

we undertake to pay to the Procuring entity up to the above amount upon receipt of its first written demand, without the Procuring entity having to substantiate its demand, provided that in its demand the Procuring entity will note that the arnouut claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions. This guarantee will remain in force up to and including thirty (30) days after the period of tender validity, and any demand in respect thereof should reach the Bank not later than the above date.

_____
[signature of the bank]

(Amend accordingly if provided by Insurance Company)

PERFORMANCE SECURITY FORM

To: ……..

[name of the Procuring entity]

WHEREAS…….[name of tenderer]

(hereinafter called "the tenderer") has undertaken, in pursuance of Contract No._____[reference number of the contract] dated _____20_____to

supply……..

[Description services](Hereinafter called "the contract")

AND WHEREAS it bas been stipulated by you in the said Contract that the tenderer shall furnish you with *a* bank guarantee by a reputable bank for the sum specified therein as security for compliance with the Tenderer's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the tenderer a guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the tenderer, up to a total of ……. *[amount of the guarantee in words and figures],*

and we undertake to pay you, upon your first written demand declaring the tenderer to be in default under the Contract and without cavil or argument, any sum or sums within the limits of ……..
[amount of guarantee] as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the _____ day of 20

_____
Signature and seal of the Guarantors

_____
[name of bank or financial institution]

_____
[address]

_____
[date]

(Amend accordingly if provided by Insurance Company)

BANK GUARANTEE FOR ADVANCE PAYMENT

To……

[name of tender]……

Gentlemen and/or Ladies:

In accordance with the payment provision included in the special conditions of contract, which amends the general conditions of contract to provide for advance payment,

……

[name and address of tenderer][hereinafter called "the tenderer"] shall deposit with the Procuring entity a bank guarantee to guarantee its proper and faithful performance under the said clause of the contract in an amount of …… *[amount of guarantee in figures and words].* We,the ……

[bank or financial institution], as instructed by the tenderer, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the Procuring entity on its first demand without whatsoever right of objection on our part and without its first claim to the tenderer, in the amount not exceeding

[amount of guarantee in figures and words].

We further agree that no change or addition to or other modification of the terms of the Contract to be performed thereunder or of any of the Contract documents which may be made between the Procuring entity and the tenderer, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment received by the tenderer under the Contract until *[date].*

Yours truly,

Signature and seal of the Guarantors

_____

[name of bank or financial institution]

_____

[address]

_____

[date]

LETTER OF NOTIFICATION OF AWARD

KENYA TRADE NETWORK AGENCY (KENTRADE)

To:_____
_____
_____
_____

RE: Tender No._____

Tender Name_____

This is to notify that the contract/s stated below under the above mentioned tender have been awarded to you.

_____
_____

1. Please acknowledge receipt of this letter of notification signifying your acceptance.

2. The contract/contracts shall be signed by the parties within 30 days of the date of this letter but not earlier than 14 days from the date of the letter.

3. You may contact the officer(s) whose particulars appear below on the subject matter of this letter of notification of award.

   *(FULL PARTICULARS)*_____
   _____

SIGNED FOR ACCOUNTING OFFICER

FORM RB 1

REPUBLIC OF KENYA

PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

APPLICATION NO…….OF……..….20……...

BETWEEN

…….APPLICANT

AND

……RESPONDENT *(Procuring Entity*)

Request for review of the decision of the…… (*Name of the Procuring Entity)* of ……dated the…day of ……20…….in the matter of Tender No……...…of ……..20…

REQUEST FOR REVIEW

I/We……,the above named Applicant(s), of address: Physical address…….Fax No……Tel. No……..Email ……, hereby request the Public Procurement Administrative Review Board to review the whole/part of the above mentioned decision on the following grounds , namely:-

1.

2.

etc.

By this memorandum, the Applicant requests the Board for an order/orders that: -

1.

2.

etc

SIGNED …….(Applicant)

Dated on…….day of ……/…20…

FOR OFFICIAL USE ONLY

Lodged with the Secretary Public Procurement Administrative Review Board on …… day of ……....20…..……

SIGNED
Board Secretary

KENYA TRADE NETWORK AGENCY (KENTRADE)

REPUBLIC OF KENYA

ANTI CORRUPTION AFFIDAVIT FORM

IN THE MATTER OF OATHS AND STATUTORY DECLARATION ACT CHAPTER 15 OF THE LAWS OF KENYA

AND

IN THE MATTER OF THE PUBLIC PROCUREMENT AND DISPOSAL ACT, NO. 33 OF 2015.

I, …… of P.O. Box …… being a resident of …… In the Republic of Kenya do hereby make oath and state as follows:-

1. THAT I am the ……;
   (Chief Executive/Managing Director/Principal Officer/Director) of ……(Name of the Business) which is a Candidate in respect of Tender Number …… to supply goods, render services and/ or carry out works for Kenya Trade Network Agency and duly authorized and competent to make this Affidavit.

2. THAT the aforesaid candidate has not been requested to pay any inducement to any member of the Board, Management, Staff and/or employees and /or agents of Kenya Trade Network Agency, which is the procuring entity.

3. THAT the aforesaid Candidate , its servant(s) and/or agent(s) have not been offered and will not offer any inducement to any member of the Board, Management, Staff and/or employees and /or agents of Kenya Trade Network Agency.

4. THAT the aforesaid Candidate, its servant(s) and agent(s) have not been debarred from any procurement process.

5. THAT what is deponed to hereinabove is true to the best of my knowledge, information and belief.

SWORN at ……..…… by the said}

……}

On this …… day of ……..…… 20…...…}

} _____
} DEPONENT

Before me }
Commissioner for Oaths }