



**INSURANCE REGULATORY AUTHORITY**

**TENDER NO. IRA/150/2020-2021**

**PROVISION OF CORE SWITCH & ASSOCIATED ACCESSORIES**

**CLOSING DATE: 12<sup>TH</sup> MARCH, 2021 AT 2:00 P.M.**

**10<sup>TH</sup> FLOOR, ZEP-RE PLACE, LONGONOT ROAD, UPPERHILL  
P.O BOX 43505-00100 NAIROBI, KENYA**

**E-mail: [procurement@ira.go.ke](mailto:procurement@ira.go.ke)**

**Web site <https://www.ira.go.ke>**

**FEBRUARY, 2021**

## Introduction

- 1.1 This Tender Document has been prepared for use by the Insurance Regulatory Authority (IRA) for the **Supply, Installation, Testing and Commissioning of Core Switch and Associated Accessories.**
- 1.2 The document includes a Letter of Invitation, Instructions to Tenderers, Detailed Specifications of the Requirements, and various forms for the tenderer to apply.
- 1.3 IRA has undertaken to ensure that the evaluation criteria is clear and explicit and that it refers to the needs and characteristics of this specific procurement for the **Supply, Installation, Testing and Commissioning of Core Switch and Associated Accessories.**

## TABLE OF CONTENTS

	PAGE
INTRODUCTION .....	2
SECTION I INVITATION TO TENDER.....	4
SECTION II INSTRUCTIONS TO TENDERERS.....	6
Appendix to Instructions to Tenderers .....	18
SECTION III GENERAL CONDITIONS OF CONTRACT.....	22
SECTION IV SPECIAL CONDITIONS OF CONTRACT.....	27
SECTION V DESCRIPTION OF SERVICES.....	28
SECTION VI TERMS OF REFERENCE.....	29
SECTION VII STANDARD FORMS.....	36
8.1 FORM OF TENDER.....	37
8.2 PRICE SCHEDULE FORM.....	38
8.3 CONTRACT FORM.....	39
8.4 CONFIDENTIAL BUSINESS QUESTIONNAIRES FORMS.....	40
8.5 SELF DECLARATION FORM.....	41
8.6 TENDER SECURITY FORM.....	42
8.7 PERFORMANCE SECURITY FORM.....	43
8.8 BANK GUARANTTE FOR ADVANCE PAYMENT FORM.....	44
8.9 TEAM COMPOSITION AND TASK ASSIGNMENTS.....	45
8.10 CVS FOR MANAGERIAL AND KEY TECHNICAL STAFF.....	46
8.11 CLIENT REFERENCE FORM.....	48

## SECTION I INVITATION TO TENDER

**DATE: 23<sup>rd</sup> February, 2021**

**TENDER NO. : IRA/150/2020-2021**

**TENDER NAME : SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF CORE SWITCH AND ASSOCIATED ACCESSORIES**

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- 1.1 The Insurance Regulatory Authority (IRA) is a government agency established under the Insurance (Amendment) Act, 2006 to regulate, supervise and promote the development the Insurance Industry in Kenya.
- 1.2 The Authority invites sealed bids from eligible candidates for **Supply, Installation, Testing and Commissioning of Core Switch and Associated Accessories**. Interested and eligible bidders are required to download the tender document from the websites free of charge and immediately email their names and contact details to: [procurement@ira.go.ke](mailto:procurement@ira.go.ke) for purposes of any clarification communication or addenda.
- 1.3 Completed tender document should be prepared and submitted in ONE (1) "ORIGINAL hard copy and in CD/Flash Disk saved in PDF format clearly labelled your company name and placed in separate sealed envelopes The two envelopes shall be placed in an outer envelope and sealed bear and marked "**IRA/150/2020-2021 – Supply, Installation, Testing and Commissioning of Core Switch and Associated Accessories**" and the tender should be addressed to: -

Chief Executive Officer (CEO)  
Insurance Regulatory Authority  
10<sup>th</sup> Floor, Zep-Re Place, Longonot Road, Upperhill  
P.O. Box 43505 – 00100  
**NAIROBI.**

so as to be received on or before **12<sup>th</sup> March, 2021 at 2:00 p.m.**

- 1.4 Prices quoted should be net inclusive of all taxes and delivery must be in Kenya Shillings or any other freely convertible currency and shall remain valid for (90) days from the closing date of the tender.
- 1.5 Tenders will be opened immediately thereafter strictly observing MOH protocols on Covid -19 Pandemic at IRA Offices, Zep-Re Place on **12<sup>th</sup>**

**March, 2021 at 2:00 p.m.** Any tender that will be received after 11.00AM, shall be rejected.

- 1.6 IRA is a Corruption free organization. Any corruption attempt, pressure, or influence should be reported to the C.E.O. on the address provided in clause 1.3 or e-mail [ethics@ira.go.ke](mailto:ethics@ira.go.ke)

**FELIX K. CHELIMO**  
**FOR: CHIEF EXECUTIVE OFFICER**  
**INSURANCE REGULATORY AUTHORITY**

## **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) Self-Declaration Form
- xi) Tender security form
- xii) Performance security form
- xiii) Principal's or Manufacturers Authorization form
- xiv) 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;
- (c) Tender security furnished is in accordance with Clause 2.12
- (d) Confidential business questionnaire

## **2.8 Form of Tender**

2.9.1 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 10% 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 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 as 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.

(c) If the tenderer rejects, correction of an error in the tender.

## **2.13 Validity of Tenders**

2.13.1 Tenders shall remain valid for 90 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 non-responsive.

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 initiated 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 12<sup>th</sup> March, 2021 at 2:00 p.m.”**

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 **12<sup>th</sup> March, 2021 at 2:00 p.m.**

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, on **12<sup>th</sup> March, 2021 at 2:00 p.m.** 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 tenderer's tender.

Comparison or contract award decisions may result in the rejection of the tenderer's 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 non-conformity 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 2.22.3 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 tenderer's 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**

- 2.24.4 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.
- 2.24.5 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.
- 2.24.6 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 tenderers

The following information for procurement of services shall complement or amend the provisions of the instructions to tenderers. Wherever there is a conflict between the provisions 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.

<b>Instructions to Tenderers</b>	<b>Particulars of appendix to instructions to tenderers</b>
2.1	The tender is for all eligible and qualified firms for the <b>Supply, Installation, Testing and Commissioning of Core Switch and Associated Accessories.</b>
2.12	Tenderers must provide a tender security of <b>KES. 50,000.00</b> Kenya Shillings Fifty Thousand only) valid for 30 days beyond the tender validity period from a reputable bank in Kenya or Insurance Company in the format provided.
2.15.1	The Tender document should be prepared and submitted ONE (1) “ORIGINAL hard copy and in CD/Flash Disk saved in PDF format clearly labelled your company name and placed in separate sealed envelopes. The two envelopes shall be placed in an outer envelope and sealed bear and marked “ <b>IRA/150/2020-2021 – Supply, Installation, Testing and Commissioning of Core Switch and Associated Accessories</b> ”
2.18.1	The Tenders will be opened immediately on <b>12<sup>th</sup> March, 2021 at 2:00 p.m.</b> and in the presence of tenderers’ representatives who choose to attend. The opening exercise will be done in strict observance to MOH protocols on Covid -19 Pandemic.
2.20	<p><b>EVALUATION CRITERIA</b></p> <p>The following evaluation criterion shall be applicable for this tender.</p> <p><b><u>PRELIMINARY EVALUATION- Mandatory Documents:</u></b></p> <p>The following are <b>MANDATORY</b> requirements that <b>MUST</b> be submitted together with the proposal:</p> <ul style="list-style-type: none"> <li>i) Certificate of Incorporation/Registration</li> <li>ii) Copy of Valid Tax Compliance Certificate (To be verified on the KRA TCC Checker)</li> <li>iii) Copy of Valid Single Business Permit (Attach Permit or payment receipt)</li> <li>iv) Manufacturer’s Authorization certificate or a letter authorizing the bidder to deal with the product(s) proposed for consideration in the format provided (<b>this should be provided for each of the items the bidder is proposing to supply</b>).</li> </ul>

- v) Attach a **copy** of CR 12 issued within the last one year and certified copies of identification documents (IDs or passports) of the owners/directors of the tenderer. The copies must be certified by an Advocate of the High Court or a Commissioner of Oaths.
  - vi) Form of Tender duly completed, signed and stamped by the Tenderer in the format provided.
  - vii) Dully completed Confidential Business Questionnaire Form (must be duly filled and signed by the authorized signatory).
  - viii) Provide copies of abridged version of audited financial statements for the last two years (2019 and 2018) **certified by** the Auditor and signed by the directors of the bidding firm as appropriate.
  - ix) The document should be legible and presentable. All pages of the bid document submitted **MUST** be sequentially serialized or paginated from page 1.
  - x) Self-declaration that the tenderer will not engage in any corrupt or fraudulent practice signed by the tenderer's authorized signatory.
- Failure to submit any of the above-mentioned documentation; will lead to disqualification of the firm at the mandatory stage. The bidders that will meet all the mandatory requirements above will proceed to the technical evaluation stage.

2.22

**TECHNICAL EVALUATION**

**(a) Detailed Technical Evaluation**

This will be based on the technical proposal submitted in accordance to the forms provided and the following criteria shall be used: -

NO.	EVALUATION CRITERIA	MAXIMUM SCORE
<b>A</b>	<b>TECHNICAL COMPLIANCE</b>	<b>40 Marks</b>
	Compliance with the technical specifications for the Core Switch and the Associated Accessories <b>Note: Bidders <u>must</u> provide valid and legible brochures/catalogues of each of the items they are proposing.</b>	
<b>B</b>	<b>CAPACITY OF THE ORGANIZATION</b>	<b>25 Marks</b>

	1	<ul style="list-style-type: none"> <li>▪ Bidders must provide names of at least 5 clients/sites where they have carried out a Network upgrade comprising of supply, installation, testing and commissioning of network switches, wireless switches within the last 7 years. The evidence for this should be in the form of LPOs and Contracts or project Sign off. The list should detail the name of client, Project date, Item description, contract amount, client contact person along with contact details (email and phone number) (15 marks). Use the template provided.</li> <li>▪ Bidders must further submit at least 5 recommendation letters from the firms provided with the service under reference. Bidder to attached 5 Reference letters (10 marks)</li> </ul>	
	<b>C</b>	<b>TECHNICAL CAPACITY OF KEY STAFF</b>	<b>15 Marks</b>
	1	Project Manager (one PMP or Prince 2 Certified) must have qualification of Master's degree and experience of at least 10 years in implementation and maintenance of IT related projects. Must be ISO 27001 Certified Attach CV & copies of Certificates. (3 marks)	
	2	Two Siemon Certified Installers. Attach CV and Certificates. (2 marks)	
	3	Two Wireless Certified Engineers . Attach CV and Certificates. (3 marks)	
	4	One CCNA and one CCNP certified engineer. Attach CV and Certificates. (3 marks)	
	5	One Certified Network Security Engineer. Attach CV and copies of certificates. (2 marks)	
	6	One Lead Engineer , bachelor's degree with ITIL V3 Certified and CISSP certified. Attach CV and Certificates. (2 marks)	
	<b>D</b>	<b>METHODOLOGY AND WORK PLAN</b>	<b>7.5 Marks</b>
	1	<b>Appropriateness of the technical proposal.</b> Bidders should include a proposed network diagram solution and a brief Architectural Overview detailing all the infrastructure components and their integration. The proposed network diagram of the winning bid will be finetuned in conjunction with the Authority before implementation. (4.5 marks)	
	2	Clear and concise project Methodology and	

		Implementation Plan (3 marks)	
<b>E</b>	<b>TRAINING</b>		<b>7.5 Marks</b>
1	Detailed Onsite training plan for key IRA staff for each of the Solutions/items so proposed		
<b>F</b>	<b>FINANCIAL CAPABILITY</b>		<b>5 Marks</b>
1	Liquidity (2.5 marks) and Profitability Ratio (2.5 marks) for the two consecutive years whose accounts have been provided		
	<b>Total Marks</b>		<b>100 Marks</b>
<p><b>Note: Bidder MUST score minimum of 80% to proceed to financial evaluation</b></p>			
	<p><b>(b) Financial Evaluation</b> The bidders who will have scored a minimum of <b>80%</b> in the Technical evaluation will be considered for a financial evaluation. Bids that score less than 80% in the technical evaluation shall be treated as non-responsive and will not be evaluated further.</p>		
	<p><b>(c)</b> The firm that qualifies at technical evaluation stage and therefore proceeds to the financial stage and has offered the lowest evaluated price will be considered for award.</p>		

## **SECTION III GENERAL CONDITIONS OF CONTRACT**

<b>TABLE OF CONTENTS</b>			<b>Page</b>
3.1	Definitions	-	23
3.2	Application	-	23
3.3	Standards	-	23
3.4	Use of contract documents and information		
3.5	Patent Rights	-	23
3.6	Performance security	-	23
3.7	Inspections and tests	-	24
3.8	Payment	-	24
3.9	Prices	-	25
3.10	Assignment	-	25
3.11	Termination for default	-	25
3.12	Termination for insolvency	-	25
3.13	Termination for convenience	-	26
3.14	Resolution of disputes	-	26
3.15	Governing language	-	26
3.16	Force majeure	-	26
3.17	Applicable law	-	26
3.18	Notices	-	26

## **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

### **3.4 Patent Right's**

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

### **3.5 Performance Security**

- 3.5.1 Within twenty-eight (28) 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.

3.5.2 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.

3.5.3 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.

3.5.4 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.

### **3.6 Inspections and Tests**

3.6.1 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.

3.6.2 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.

3.6.3 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.

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

### **3.7 Payment**

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

### **3.8 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.

### **3.9 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.

### **3.11 Termination of insolvency**

The procuring entity may at the anytime 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.

### **3.12 Termination for convenience**

- 3.12.1 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.
- 3.12.2 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.

### **3.13 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.

### **3.14 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.

### **3.15 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.

### **3.16 Applicable Law.**

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

### **3.17 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.

<b>General conditions of contract reference</b>	<b>Special conditions of contract</b>
3.5	Performance security in the format provided in the standard document from a reputable bank in Kenya or Insurance Company equivalent to 10% of the total annual contract
3.7	Payment will be made as and when satisfactory service has been rendered
3.13	The dispute resolution will be referred to the Chartered Institute of Arbitrators.
3.18	10 <sup>th</sup> Floor Zep-Re Place, Longonot Road, Upperhill, P.O. Box 43505 – 00100 Nairobi, Kenya.

## **SECTION V – TECHNICAL SPECIFICATIONS**

### **5.1 General**

- 5.1.1 These specifications describe the requirements for goods. Tenderers are requested to submit with their offers the detailed specifications, drawings, catalogues, brochures, etc for the products they intend to supply where applicable.
- 5.1.2 Tenderers must indicate on the specifications sheets whether the equipment offered comply with each specified requirement.
- 5.1.3 All the dimensions and capacities of the equipment to be supplied shall not be less than those required in these specifications. Deviations from the basic requirements, if any shall be explained in detail in writing with the offer, with supporting data such as calculation sheets, etc. The procuring entity reserves the right to reject the products, if such deviations shall be found critical to the use and operation of the products.
- 5.1.4 The tenderers are requested to present information along with their offers as follows:
- (i) Shortest possible delivery period of each product
  - (ii) Information on proper representative and/or workshop for back-up service/repair and maintenance including their names and addresses.
  - (iii) Bidder must mention the country of origin for the goods.

## **5.2 TECHNICAL SPECIFICATIONS FOR SUPPLY, INSTALLATION & TESTING OF CORE SWITCH AND ASSOCIATED ACCESSORIES**

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### **INTRODUCTION**

The Insurance Regulatory Authority (IRA) is a State Corporation established under the Insurance Act, Cap 487 of the Laws of Kenya with the mandate to regulate, supervise and promote development of the insurance industry in Kenya.

IRA over the past few years has made strides in deploying ICT solution that acts as a tool of dispensing its legislative services to the users. In this quest to harness technology, the IRA needs to Upgrade Network (Wired and Wireless). The components proposed to be supplied by the Contractor shall be branded industry proven products. All supplies shall conform to the requirements of relevant.

Kenyan and International standards. The Contractor shall provide all the required components and services to fulfill the intent of the specification and to ensure the completeness, operation and maintainability of the system at no extra cost to the procuring entity.

### **SCOPE OF WORK**

The scope of this tender comprises the detailed network Designing, Supply, Installation, Testing and Commissioning of Network equipment which include Redundant Core Switch and the Associated Accessories within IRA Offices as described in this documentation. IRA shall strive to achieve this noble objective by deploying sustainable, reliable and affordable technologies in the market.

The contractor shall be expected to: -

1. be responsible for ensuring that LAN installation devices are fully compatible with the IRA provided specifications; the Contractor shall include the required/necessary modifications and rectifications to the systems during the system implementation phase. Any of such modifications and rectifications must be done in writing to the ICT manager for approval before they are implemented.
2. ensure that all Wired and Wireless Access Points (WAP) are configured to access internet and other Network Resources from Print /internet Servers and can broadcast the signal. This shall be done to ensure that all Access Points (APs) and extenders have the required configuration to transmit the internet services amongst other Network services.

3. have the Access points configured in different channels to avoid signal overlap within the same broadcast length.
4. note the project time schedule and ensure that the project is fully implemented and operational for the hand-over of the Project within the seven (7) weeks from award of the contract. In addition, the Contractor shall provide all necessary additional resources and solutions to mitigate any risks associated with the project.
5. Provide a 3-month Defects Liability Period (DLP) after practical completion date/commissioning date. The Contractor shall provide system performance warranty for the installed system from the manufacturers of the components/equipment.
6. Provide Service Level Agreements (SLAs) to ensure maintenance and resolving of issue with the Network Services.

In summary the Contractor is expected to: -

- i) Supply Networking equipment and other accessories listed in the BOQ and technical support.
- ii) Comprehensively label all installed devices/components which shall be contained in the network documentation.
- iii) Provide any necessary accessories to ensure that both wired and wireless reception is wholesomely achieved in the IRA offices. Testing of the reception will have to be done prior to completion and sign off of the project.
- iv) Ensure that the wireless access points must be configured with two SSIDs. One for IRA Staff and the second SSIDs for the guest access. The guest SSID platform shall not be broadcasted and shall only allow guests to have internet access with no access whatsoever to the IRA core network.

Tenderers are required to ensure compliance with the specifications in the format provided in the table below for the core switch and associated accessories: -

## TECHNICAL SPECIFICATION

Description	Complied (C) /Not Complied (NC)/Partially Complied (PC)	If complied Bidder's MUST provide explanation of compliance with reference to datasheet or bill of materials with the specific page number and section of the reference
<b>(a) Core Switch</b>		
1. Proposed switch must have high wire-rate performance for switching and routing at 40 G, 10 G and gigabit speeds. Advanced services are incorporated in the operating system: QoS, access control lists (ACLs), L2/L3, VLAN stacking and IPv6		
1. Proposed switch must have Redundant hardware system architecture. Internal, hot-swappable power supplies, fans. Front-to-back and back-to-front cooling models		
2. Switch must have Power consumption per 10 GbE port in its class		
3. Proposed switch must have scalable network virtualization architecture for guaranteed SLA delivery over standard Ethernet fabric: Edge Virtual Bridging (EVB), Shortest Path Bridging (SPB) and dynamic Virtual Network Profiles (vNP)		
4. Proposed switch must have DCB support: Lossless Ethernet for all traffic		
5. Switches shall propose a linux-like CLI (cd, pwd, cp, mv, rm, vi, ls...).		
6. Max switching capacity 600 - 640 Gb/s and Throughput 400 - 480 Mbps		
7. Power consumption 150 - 200 Watts and Heat dissipation Heat dissipation		
8. Switch shall be fully SNMP (v1, v2 & v3) manageable and every configuration item should be configurable through SNMP.		
9. Switch shall support the following remote access methods: FTP, SCP, SSH(v2)/SFTP, Telnet, TFTP.		
10. Switch shall support Multiple software images and configurations with fallback recovery. A reboot of any switch may be initiated with a time-out programmable rollback, allowing		

automatic fallback to a safe configuration and/or software image.		
11.Switch shall support disaster recovery and upload/download image files through USB device.		
12.Switch shall support RMon Base, sFlow Base, Switch Logging and Syslog.		
13.Switch shall support Unidirectional Link Detection (UDLD) and Digital Diagnostic Monitoring (DDM), allowing real-time diagnostics of fiber connections for early detection of optical signal deterioration.		
14.Switch shall support 802.1AB Link Layer Discovery Protocol (LLDP) with MED extensions for automated device discovery.		
15.Switch shall support Multiple VLAN Registration Protocol (MVRP) for IEEE 802.1Q-compliant virtual LAN (VLAN) pruning and dynamic VLAN creation.		
16.Core switch shall support an auto-QoS feature for switch management traffic and traffic from IP phones.		
17.Core switch shall support remote auto-configuration download easing and automating provisioning of edge switches.		
<b>Routing and Multicast</b>		
1. Switch shall support a switch capacity of 160 Gb/s on the 24 Port and 200 Gb/S on the 48 port and 240 Gb/S on the 10 port		
2. Switch shall support a switch frame rate of 120 Mpps on the 24 Port and 160 Mpps on the 48 port and 200 Mpps on the 10 port		
3. Every switch shall support at least static routing and RIP (v1 & v2 for IPv4, next generation for IPv6).		
4. Every switch shall support at least 256 IPv4 and 128 IPv6 routes		
5. Every switch shall support at least 128 IPv4 and 16 IPv6 router interfaces		
6. Every switch shall support IGMPv1/v2/v3 snooping for optimized multicast traffic.		
7. Every switch shall support Multicast Listener Discovery (MLD) v1/v2 snooping.		
8. Every switch shall support at least 1000 multicast groups		
9. Every switch shall support Multicast VLAN (IPMVLAN)		
<b>Switch Resiliency and high availability</b>		
1. Every switch shall support 802.1d STP		

Spanning Tree Protocol.		
2. Every switch shall support 802.1w Rapid Spanning Tree Protocol.		
3. Every switch shall support 802.1s Multiple Spanning Tree Protocol.		
4. Every switch shall support Per-VLAN spanning tree (PVST+)		
5. Every access switch shall support Dual Home Link (DHL) for link protection without Spanning Tree protocol.		
6. Every switch shall support Link Aggregation – Static and LACP (802.3ad).		
7. Every switch shall support broadcast and multicast storm control to avoid degradation in overall system performance.		
8. Every switch shall support TU-T G.8032/Y.1344 2010: Ethernet Ring Protection (ERPV2)		
9. Every switch shall support LLDP (802.1ab)		
10. Every switch shall support Virtual Chassis In-Service Software Upgrade (ISSU)		
11. Every switch shall support Virtual Chassis 1+N redundant supervisor manager		
<b>Switch Security</b>		
1. Every switch shall support Auto-sensing IEEE 802.1X multi-client, multi-VLAN MAC-based authentication for non-802.1X hosts.		
2. Every access switch shall support an embedded NAC framework for comprehensive user-policy-based network access control.		
3. Every access switch shall support centralized RADIUS for device authentication and network access control authorization.		
4. Every access switch shall support Web-based authentication (Captive Portal): A customizable web portal residing on the switch that can be used for authenticating supplicants as well as non-supplicants.		
5. Every switch shall support Centralized RADIUS and LDAP administrator authentication.		
6. Every access switch shall support dynamic change of authentication (CoA) and enforcing traffic remediation or restriction for non-compliant devices.		
7. Every access switch shall support automated assignment of QoS and Security based on MAC address (range) or IP address (range), preferably using the concept of configurable Network Profiles holding QoS and Security parameters, and which are dynamically		

assigned.		
8. Every access switch shall support MAC address lockdown.		
9. Every switch shall support ARP Defense Optimization.		
10. Every switch shall support ARP Poisoning Detect.		
11. Every switch shall support IP DoS Filtering.		
12. Every switch shall support user-oriented features such as learned port security (LPS), port mapping, Dynamic Host Configuration Protocol (DHCP) binding tables and User Network Profile (UNP)		
13. Every switch shall support MACSec encryption to secure the network edge: 1G/2.5G user and 10G up-link ports		
14. Switch shall support the deployment of comprehensive and secure BYoD services in enterprise networks such as guest management, device on-boarding, device posturing, application management and dynamic change of authentication (CoA).		
<b>Switch Convergence</b>		
1. Every PoE capable switch shall support IP phones and WLAN access points, as well as any IEEE 802.3af and IEEE 802.3at- 802.3bt compliant end devices.		
2. Every PoE capable switch shall allow configuring per-port PoE priority and max power for power allocation.		
3. Every PoE capable switch shall support dynamic PoE allocation: Delivering only the power needed by the powered devices (PD) up to the total power budget for most efficient power consumption.		
4. Every PoE capable switch shall support PoE power negotiation via LLDP MED TLV extensions.		
5. Every switch shall support eight hardware-based queues per port for flexible QoS management.		
6. Every switch shall support Flow-based QoS with internal and external (remarking) prioritization.		
7. Every switch shall support Flow-based bandwidth management, ingress rate limiting; egress rate shaping per port.		

8. Every switch shall support Configurable scheduling algorithms, including Strict Priority Queuing (SPQ), Weighted Round Robin (WRR) and Deficit Round Robin (DRR).		
9. Every switch shall support Airgroup Network Services for Bonjour speaking devices provides consistent experience over wireless and wired networks		
10. Every switch shall support deployment with automated switch setup and		
11. configuration and end-to-end virtual LAN (VLAN) provisioning		
<b>Management</b>		
1. Intuitive CLI in a scriptable BASH environment via console, Telnet or Secure Shell (SSH) v2 over IPv4/IPv6		
2. Every switch shall support Powerful WebView Graphical Web		
3. Interface via HTTP and HTTPS over IPv4/IPv6		
4. Every switch shall support Network Automation and Programmability Abstraction		
5. Layer with Multivendor (NAPALM) support		
6. Every switch shall support Fully programmable RESTful web services interface with XML and JSON support. API enables access to CLI and individual MIB objects		
7. Every switch shall support File upload using USB, TFTP, FTP,		
8. SFTP or SCP using IPv4/IPv6		
9. Every switch shall support File upload using USB, Trivial File Transfer Protocol (TFTP), FTP, SFTP or secure copy (SCP) over IPv4/IPv6		
10. Every switch shall support Human-readable ASCII-based configuration files for off-line editing, bulk configuration and out-of-the-box auto-provisioning • Fully programmable OpenFlow 1.3.1 and 1.0 agent for control of native OpenFlow and hybrid ports		
11. Every switch shall support Non-volatile memory for start-up configuration		
12. Every switch shall support Multiple microcode image support with fallback recovery		
13. Every switch shall support Dynamic Host Configuration Protocol (DHCP) relay for IPv4/IPv6		
14. Every switch shall support IEEE 802.1AB Link Layer Discover Protocol (LLDP) with Media Endpoint Discover (MED) extensions		

15. Every switch shall support NTP		
16. Every TOR switch shall support Access to the console via USB Adapter with Bluetooth technology to provide wireless management, eliminating the use of console cables		
17. Every switch shall support ARP poisoning detection		
18. Every switch shall support IP v4 & v6 Source Filtering as a protective and effective mechanism against ARP attacks		
19. Every switch shall support Bring Your Own Device (BYOD) provides on-boarding of Guest, IT/non-IT issued and silent devices. Restriction/Remediation of traffic from non-compliant devices.		
20. Uses RADIUS CoA to dynamically enforce User Network Profiles based on Authentication, Profiling, Posture check of devices.		
21. Every switch shall support Role-based authentication for routed domains		
<b>Quality of Services</b>		
1. Every switch shall support Priority queues: Eight hardware-based queues per port		
2. Every switch shall support Traffic prioritization: Flow-based QoS		
3. Every switch shall support Flow-based traffic policing and bandwidth management		
4. Every switch shall support 32-bit IPv4/128-bit IPv6 non-contiguous mask classification		
5. Every switch shall support Egress traffic shaping		
6. Every switch shall support Lossless Virtual Output Queuing (VOQ) with configurable scheduling algorithms		
7. Every switch shall support DiffServ architecture		
8. Every switch shall support Congestion avoidance: Support for end- to-end head-of-line (E2EHOL) blocking prevention, IEEE 802.1Qbb Priority-based Flow Control (PFC) and IEEE 802.3x Flow Control (FC)		
<b>(b) Access Switch</b>		
<b>Access Switch Management</b>		
1. All the switches shall use the same Network Operating System, with matching CLI commands and an embedded Web-based GUI that shall allow configuration of every configuration item.		

2. Switches shall propose a linux-like CLI (cd, pwd, cp, mv, rm, vi, ls...).		
3. Every switch shall support the following remote access methods: FTP, SCP, SSH(v2)/SFTP, Telnet, TFTP.		
4. Every switch shall support Multiple software images and configurations with fallback recovery. A reboot of any switch may be initiated with a time-out programmable rollback, allowing automatic fallback to a safe configuration and/or software image.		
5. Every switch shall support disaster recovery and upload/download image files through USB device.		
6. Every switch shall support RMon Base, sFlow Base, Switch Logging and Syslog.		
7. Every switch shall support Port Mirroring: Policy Based Mirroring - Remote Port Mirroring.		
8. Every switch shall support Unidirectional Link Detection (UDLD) and Digital Diagnostic Monitoring (DDM), allowing real-time diagnostics of fiber connections for early detection of optical signal deterioration.		
9. Every switch shall support 802.1AB Link Layer Discovery Protocol (LLDP) with MED extensions for automated device discovery.		
10. Every switch shall support Multiple VLAN Registration Protocol (MVRP) for IEEE 802.1Q-compliant virtual LAN (VLAN) pruning and dynamic VLAN creation.		
11. Every switch shall support Network Time Protocol (NTP) for network-wide time synchronization.		
12. Every access switch shall support an auto-QoS feature for switch management traffic and traffic from IP phones.		
13. Every access switch shall support remote auto-configuration download easing and automating provisioning of edge switches.		
<b>Routing and Multicast</b>		
1. Every switch shall be wire-rate non-blocking for switching (latency < 4 microseconds) and routing.		
2. Every switch shall support 4000 VLANs and IEEE 802.1q standard.		
3. Every switch shall support 1500 system policies		
4. Every switch shall support 16k MAC Addresses.		

5. Every switch shall support a switch capacity of 160 Gb/s on the 24 Port and 200 Gb/S on the 48 port and 240 Gb/S on the 10 port		
6. Every switch shall support a switch frame rate of 120 Mpps on the 24 Port and 160 Mpps on the 48 port and 200 Mpps on the 10 port		
7. Every switch shall support at least static routing and RIP (v1 & v2 for IPv4, next generation for IPv6).		
8. Every switch shall support at least 256 IPv4 and 128 IPv6 routes		
9. Every switch shall support at least 128 IPv4 and 16 IPv6 router interfaces		
10. Access switches should support OSPF		
11. Every switch shall support IGMPv1/v2/v3 snooping for optimized multicast traffic.		
12. Every switch shall support Multicast Listener Discovery (MLD) v1/v2 snooping.		
13. Every switch shall support at least 1000 multicast groups		
14. Every switch shall support Multicast VLAN (IPMVLAN)		
<b>Resiliency and high availability</b>		
1. Every switch shall support 802.1d STP Spanning Tree Protocol.		
2. Every switch shall support 802.1w Rapid Spanning Tree Protocol.		
3. Every switch shall support 802.1s Multiple Spanning Tree Protocol.		
4. Every switch shall support Per-VLAN spanning tree (PVST+)		
5. Every access switch shall support Dual Home Link (DHL) for link protection without Spanning Tree protocol.		
6. Every switch shall support Link Aggregation – Static and LACP (802.3ad).		
7. Every switch shall support broadcast and multicast storm control to avoid degradation in overall system performance.		
8. Every switch shall support TU-T G.8032/Y.1344 2010: Ethernet Ring Protection (ERPv2)		
9. Every switch shall support LLDP (802.1ab)		
10. Every switch shall support Virtual Chassis In-Service Software Upgrade (ISSU)		
11. Every switch shall support Virtual Chassis 1+N redundant supervisor manager		
<b>Access Switch Security</b>		

1. Every switch shall support Auto-sensing IEEE 802.1X multi-client, multi-VLAN MAC-based authentication for non-802.1X hosts.		
2. Every access switch shall support an embedded NAC framework for comprehensive user-policy-based network access control.		
3. Every access switch shall support centralized RADIUS for device authentication and network access control authorization.		
4. Every access switch shall support Web-based authentication (Captive Portal): A customizable web portal residing on the switch that can be used for authenticating supplicants as well as non-supplicants.		
5. Every switch shall support Centralized RADIUS and LDAP administrator authentication.		
6. Every access switch shall support dynamic change of authentication (CoA) and enforcing traffic remediation or restriction for non-compliant devices.		
7. Every access switch shall support automated assignment of QoS and Security based on MAC address (range) or IP address (range), preferably using the concept of configurable Network Profiles holding QoS and Security parameters, and which are dynamically assigned.		
8. Every switch shall support ARP Defense Optimization.		
9. Every switch shall support ARP Poisoning Detect.		
10. Every switch shall support IP DoS Filtering.		
11. Every switch shall support MACSec encryption to secure the network edge: 1G/2.5G user and 10G up-link ports		
12. Every switch shall support user authentication with Access Guardian (IEEE 802.1x/MAC/captive portal) with Host Integrity Check (HIC) enforcement		
13. Every switch shall support the deployment of comprehensive and secure BYoD services in enterprise networks such as guest management, device on-boarding, device posturing, application management and dynamic change of authentication (CoA).		
<b>Access Switch Convergence</b>		
1. Every PoE capable switch shall support IP phones and WLAN access points, as well as any IEEE 802.3af and IEEE 802.3at- 802.3bt compliant end devices.		

2. Every PoE capable switch shall allow configuring per-port PoE priority and max power for power allocation.		
3. Every PoE capable switch shall support dynamic PoE allocation: Delivering only the power needed by the powered devices (PD) up to the total power budget for most efficient power consumption.		
4. Every PoE capable switch shall support PoE power negotiation via LLDP MED TLV extensions.		
5. Every switch shall support eight hardware-based queues per port for flexible QoS management.		
6. Every switch shall support Flow-based QoS with internal and external (remarking) prioritization.		
7. Every switch shall support Flow-based bandwidth management, ingress rate limiting; egress rate shaping per port.		
8. Every switch shall support Configurable scheduling algorithms, including Strict Priority Queuing (SPQ), Weighted Round Robin (WRR) and Deficit Round Robin (DRR).		
9. Every switch shall support Airgroup Network Services for Bonjour speaking devices provides consistent experience over wireless and wired networks		
10. Every switch shall support deployment with automated switch setup and		
11. configuration and end-to-end virtual LAN (VLAN) provisioning		
<b>Management</b>		
1. Intuitive CLI in a scriptable BASH environment via console, Telnet or Secure Shell (SSH) v2 over IPv4/IPv6		
2. Every switch shall support Network Automation and Programmability Abstraction Layer with Multivendor (NAPALM) support		
3. Every switch shall support Fully programmable RESTful web services interface with XML and JSON support. API enables access to CLI and individual MIB objects		
4. Every switch shall support File upload using USB, Trivial File Transfer Protocol (TFTP), FTP, SFTP or secure copy (SCP) over IPv4/IPv6		
5. Every switch shall support Non-volatile memory for start-up configuration		
6. Every switch shall support Multiple microcode image support with fallback recovery		

7. Every switch shall support Dynamic Host Configuration Protocol (DHCP) relay for IPv4/IPv6		
8. Every switch shall support IEEE 802.1AB Link Layer Discover Protocol (LLDP) with Media Endpoint Discover (MED) extensions		
9. Every switch shall support NTP		
10. Every TOR switch shall support Access to the console via USB Adapter with Bluetooth technology to provide wireless management, eliminating the use of console cables		
11. Every switch shall support ARP poisoning detection.		
<b>Quality of Service (QoS)</b>		
1. Every switch shall support Priority queues: Eight hardware-based queues per port		
2. Every switch shall support Traffic prioritization: Flow-based QoS		
3. Every switch shall support Flow-based traffic policing and bandwidth management		
4. Every switch shall support 32-bit IPv4/128-bit IPv6 non-contiguous mask classification		
5. Every switch shall support Egress traffic shaping		
6. Every switch shall support Lossless Virtual Output Queuing (VOQ) with configurable scheduling algorithms		
7. Every switch shall support DiffServ architecture		
8. Every switch shall support Congestion avoidance: Support for end- to-end head-of-line (E2EHOL) blocking prevention, IEEE 802.1Qbb Priority-based Flow Control (PFC) and IEEE 802.3x Flow Control (FC)		
<b>Monitoring and Troubleshooting</b>		
1. Every switch shall support Local (on the flash) and remote server logging (Syslog): event and command logging		
2. Every switch shall support IP tools: ping and trace route		
3. Every switch shall support Dying Gasp support via SNMP and syslog messages		
4. Every switch shall support Loopback IP address support for management per service		
5. Every switch shall support Management virtual routing and forwarding (VRF) support		
6. Every switch shall support Policy- and port-based mirroring		

7. Every switch shall support Remote port mirroring		
8. Every switch shall support sFlow v5 and Remote Monitoring (RMON)		
9. Unidirectional Link Detection (UDLD), Digital Diagnostic Monitoring (DDM), and Time Domain Reflectometry (TDR		
<b>(c ) Wireless LAN</b>		
<b>Solution &amp; Architecture</b>		
1. The wireless LAN solution shall be based on IEEE 802.11 and shall be WFA certified for Data and Voice.		
2. The wireless LAN solution shall propose a distributed control function (no centralized controller) with inherent support for redundancy, elimination of traffic bottlenecks and lowered latency.		
3. The wireless LAN solution shall rely on a distributed and L2 only data plane.		
4. The wireless LAN solution shall come in two flavors allowing two deployment types: “small deployment” for a mono-site deployment with Access Points spread over a single broadcast domain (VLAN) and operating in a common RF environment § “large deployment” for a multi-site deployment with Access Points spread over multiple broadcast domains (VLAN) that may operate in different RF environment		
5. For both deployment types, the solution shall offer advanced features like Intrusion Detection/Prevention or a Captive Portal to manage guests’ connection without additional third-party components management per service		
6. The wireless LAN solution shall propose a centralized management function		
7. The WLAN solution shall allow to connect two distant sites over a wireless point-to-point link.		
8. The WLAN solution shall allow to connect multiple distant sites over wireless.		
9. The WLAN solution shall support IPv6 for wireless clients.		
10. Access Control, Authentication and Encryption		
11. The wireless LAN solution shall support 802.1x based authentication.		

12.If the built-in RADIUS server as described previously ([17]) shall interface with an external RADIUS server, then it shall be able to interface with multiple and distinct RADIUS servers depending on specific access conditions (SSID name, Access Point IP address, identity of the connecting user...)		
13.The wireless LAN solution shall support following link layer encryption standards: WPA2_AES, WPA2_TKIP, WPA_AES, WPA_TKIP, DYNAMIC_WEP, WPA_PSK_AES, WPA_PSK_TKIP, WPA_PSK_AES_TKIP, WPA2_PSK_AES, WPA2_PSK_TKIP, WPA3_PSK_SAE_AES, WPA3_SAE_AES.		
14.The wireless LAN solution shall support the latest WPA3 encryption standard.		
15.The wireless LAN solution shall support following 802.1x supplicants: Windows 7, 10, MAC OS, IOS, Android, Chromebook...		
16.The wireless LAN solution shall support time-based policy access to a SSID.		
17.The Guest management solution shall allow, at least, following authentication methods:		
• Username & Password		
• Access Code		
• Simple Term & Condition acceptance		
18.The Guest management solution shall allow non-IT staff (e.g., a receptionist) to create temporary guest accounts.		
19.The WLAN solution shall allow guests accounts bulk provisioning by importing a file containing guest accounts information and shall propose a template import file.		
20.The WLAN solution shall allow data retention on user sessions when providing Guest Wi-Fi.		
21.The on-boarding process of employee devices shall be based on employee corporate accounts.		
22.The BYOD application shall allow setting the validity period for the device, and the maximum number of devices per account.		
<b>RF Management</b>		
1. The WLAN solution shall allow automatic and/or manual RF management (channel and power).		
2. The WLAN solution shall support Short Guard Interval.		
3. The WLAN solution shall be smart enough to guide a new client to the optimal band/channel (2.4GHz/5GHz) considering, at a given time, both the number of associated		

clients on each band, and the medium utilization.		
4. If no band/channel (2.4GHz/5GHz) is overloaded (high medium utilization) or crowded (high client count), an AP shall by default guide a new client to the 5GHz band.		
5. Even if the 5GHz band is not overloaded but is crowded (high client count), an AP shall guide a new client to the 2.4GHz band.		
6. If a band/channel (2.4GHz/5GHz) is overloaded (high medium utilization) and even if it is not crowded, an AP shall guide a new client to the less loaded band/channel.		
7. If all bands/channels (2.4GHz/5GHz) are overloaded (high medium utilization) and no band/channel is crowded, an AP shall guide a new client to the 5GHz band.		
8. If all bands/channels (2.4GHz/5GHz) are overloaded (high medium utilization) and the 5GHz is crowded, an AP shall guide a new client to the 2.4GHz band.		
9. When a new client discovers multiple APs to associate to, the new client shall be guided to the AP that has the fewest associated clients, thus allowing smart/dynamic load balancing.		
10. The WLAN solution shall force clients to the 5GHz only when there are dual band capable.		
11. The WLAN solution shall deny connection to an AP when the signal of the client becomes too weak and disconnect a client to force it to roam when the signal becomes too weak.		
12. The WLAN solution shall support the IEEE 802.11v and 802.11k standards to facilitate network guided roaming.		
13. The WLAN solution shall support data rate control to encourage clients to roam at higher rates.		
14. The WLAN solution shall propose APs that can scan the air in order to provide interfering/rogue APs and wireless attacks detection and shall not rely on dedicated scanning equipment.		
15. The scanning function of the APs shall not impact active voice or video calls (SIP and H.323).		
16. At least for the 5GHz band, the WLAN solution shall allow to define the list of channels which can participate in dynamic configuration.		
17. The WLAN solution shall allow to define a range of transmit power per band (min & max)		

even if power settings are configured for automatic and dynamic assignments.		
18.The WLAN solution shall propose Access Points which can all be configured and deployed in a dedicated scanning mode.		
19.The WLAN solution shall allow long interval background scanning.		
<b>Intrusion Detection and Prevention</b>		
1. The WLAN solution have wIDS/wIPS capabilities with no additional and dedicated equipment nor additional license.		
2. The WLAN solution shall be able to identify Interfering APs.		
3. The WLAN solution shall be able to identify and contain Rogue APs.		
4. The WLAN solution shall allow the definition of flexible policies to classify an AP as a Rogue AP.		
<b>Quality of Service (QoS)</b>		
1. ACL based (source/destination IP address and TCP/UDP ports) permit/deny decision		
2. QoS priority marking and queuing		
3. The wireless LAN solution shall comply with the 802.11e WMM standard and shall allow for custom QoS tag (802.1p/DSCP) to WMM queue mapping.		
4. The wireless LAN solution shall propose broadcast traffic optimization mechanisms (including Broadcast filtering and Broadcast/Multicast Key rotation).		
5. Leveraging its IGMP snooping capabilities, the wireless LAN solution shall be able to optimize multicast traffic by converting multicast traffic to unicast traffic.		
6. The wireless LAN solution shall propose the WMM Automatic Power Save delivery (APSD) feature to allow clients conserve battery life.		
7. The wireless LAN solution shall by default identify Voice and Video (SIP and H323) calls and provide appropriate treatment.		
<b>Management</b>		
1. The wireless LAN solution shall propose a centralized management function based on an embedded and secure WEB GUI.		
2. If the centralized management function requires the deployment of a dedicated application, this one shall be in the form of a Virtual Appliance that can be installed on top of any of following hypervisors: VMware ESXi, Microsoft HyperV and Oracle VirtualBox.		

3. The WLAN solution shall be able to automatically discover new APs added to the network.		
4. Centralized management function shall allow to display the physical topology of the network, including wireless links between APs.		
5. The centralized management function shall allow per equipment configuration and software backup and restore, and bulk backup and restore		
6. The centralized management function shall allow access to all WIPS/WIDS features.		
<b>Indoor Access Point Type A</b>		
1. The WLAN solution shall propose a 802.11ac wave2 MU-MIMO indoor tri-radio AP Access Point (2.4, 5G low, 5G high):		
2. The access Point shall have integrated omnidirectional antennas or may be equipped with external antennas.		
3. The access Point shall offer native BLE radio support.		
4. The access Point shall support up to 24 SSIDs (8 per radio).		
5. The access Point shall offer up to 1733Mbps throughput on the 5Ghz band (low and high bands) and up to 800Mbps throughput on the 2.4GHz band.		
6. The access Point shall support up to 768 clients.		
7. The access Point shall have one 1Gb Ethernet port and one 2.5Gb Ethernet (IEEE 802.3bz Multi-rate Gigabit Ethernet) which may be aggregated as a single logical link (LACP).		
8. The access Point shall propose Deep Packet Inspection (DPI) capabilities providing real-time classification of flows at the application level.		
9. The access Point shall support 802.3af/at PoE with 27.6W maximum consumption.		
10. The MTBF for the access Point shall be at least 525600h (60 years).		
11. The access Point shall propose a Factory reset button.		
12. The access Point shall propose a Factory reset button.		
<b>Indoor Access Point Type B</b>		
1. Proposed access points must support 802.11ac.		

2. Must support concurrent data rate of 1.2 Gb/s (867 Mb/s in 5 GHz and 400 Mb/s in 2.4 GHz), 80 MHz channels (VHT80), multi-user MIMO (MU-MIMO) and two spatial streams (2SS) per radio.		
3. Must provide simultaneous multicast data transmission to multiple devices, maximizing data throughput and improving network efficiency.		
4. Must support enhanced WLAN technology with RF Radio Dynamic Adjustment, a distributed control Wi-Fi architecture, secure network admission control with unified access, must have built in application intelligence and analytics, making it ideal for enterprises of all sizes demanding a simple, secure and scalable wireless solution.		
5. Must have integrated support for BLE5.0/Zigbee/Thread, making it ideal for broad scope of IoT end-points and applications.		
6. Access point must support fine-tuned, quality of service (QoS) parameters to differentiate and provide appropriate QoS for each application such as voice, video and desktop sharing. Access Point must be 802.11e (WMM) compliant, also providing marking for RTP/SRTP sessions which include Skype for business, Google Hangout etc.		
7. Must support RF management for Radio Dynamic Adjustment (RDA) technology automatically assigns channels and power settings, provides DFS/TPC, and ensures that access points stay clear of all radio frequency interference (RFI) sources to deliver reliable, high-performance wireless LANs. APs can be configured to provide part-time or dedicated air monitoring for spectrum analysis and wireless intrusion protection		
8. The AP must have built-in BLE that can act in either BLE beacon mode and BLE gateway mode or both modes simultaneously. To enable a single infrastructure to be used for asset tracking as well as for other Location-Based Services like smart-phone based Way-Finding, Geo-Notification etc. Employing a single infrastructure simplifies the solution deployment and reduces the cost of a total location services solution		
9. AP Radio specification AP type: Indoor, dual radio, 5 GHz 802.11ac 2x2:2 MU-MIMO and 2.4 GHz 802.11n 2x2:2		

<p>MIMO 5 GHz: Two spatial stream single user (SU) /multi user (MU) MIMO for up to 867 Mb/s wireless data rate</p> <ul style="list-style-type: none"> <li>• GHz: Two spatial stream single user (SU) MIMO for up to 400 Mb/s wireless data rate to individual 2x2 VHT40 client devices (300 Mb/s for HT40 802.11n client devices)</li> <li>• Supported frequency bands (country specific restrictions apply): ↯ 2.400 to 2.4835 GHz ↯ 5.150 to 5.250 GHz ↯ 5.250 to 5.350 GHz ↯ 5.470 to 5.725 GHz ↯ 5.725 to 5.850 GHz</li> </ul>		
<p>10. BLE reception Support required</p> <ul style="list-style-type: none"> <li>• -103.3 dBm sensitivity at 125 kbit/s GFSK, 2.4 GHz</li> <li>• -94.8 dBm sensitivity at 1 Mbit/s GFSK, 2.4 GHz</li> <li>• -91.5 dBm sensitivity at 2 Mbit/s GFSK, 2.4 GHz</li> <li>• -102.7 dBm sensitivity at 250 kbps DSSS-OQPSK, 2.4 GHz</li> </ul>		
<p>11. Access Point Capacity</p> <ul style="list-style-type: none"> <li>• Must Support up to 8 SSID per radio. Total 16 SSIDs (HW ready to extend to 32 SSID)</li> <li>• Must Support for up to 512 associated client devices per AP</li> </ul>		
<p>12. Regulatory &amp; certification Standard Support</p> <ul style="list-style-type: none"> <li>• CB Scheme Safety, cTUVus</li> <li>• Wi-Fi Alliance (WFA) certified 802.11a/b/g/n/ac</li> <li>• FCC • CE marked</li> <li>• RoHS, REACH, WEEE</li> <li>• EN 60601-1-1 &amp; EN 60601-1-2</li> <li>• EMI and susceptibility (Class B)</li> </ul>		
<p>13. IEEE standard Support:</p> <ul style="list-style-type: none"> <li>• IEEE 802.11a/b/g/n/ac Wave 2</li> <li>• IEEE 802.11e WMM</li> <li>• IEEE 802.11h, 802.11i, 802.11e QoS</li> <li>• IEEE 802.1Q (VLAN tagging)</li> <li>• 802.11k Radio Resource Management</li> <li>• 802.11v BSS Transition Management</li> <li>• 802.11r Fast Roaming</li> </ul>		
<p>14. Security Standard Support</p> <ul style="list-style-type: none"> <li>• 802.11i, Wi-Fi Protected Access 2 (WPA2), WPA, AES 128-256 bits</li> <li>• 802.1X</li> <li>• WEP, Temporal Key Integrity Protocol (TKIP)</li> <li>• Firewall: ACL, wIPS/wIDS and DPI application policy enforcement with</li> </ul>		

<p>NMS</p> <ul style="list-style-type: none"> <li>• Portal page authentication</li> <li>• Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys</li> </ul>		
<p>15. Must support Plug and Play Secure Web managed (HTTPS) cluster deployment. The access point cluster must be an autonomous system that consists of a group of APs and a virtual controller, which is a selected access point, for cluster management. One AP cluster must support up to 64 APs.</p>		
<p>16. The AP must support secure zero-touch provisioning with IP Telephony mechanism by which all access points in a cluster will obtain bootstrap data securely from an on-premise Communication system.</p>		
<p>17. Bidder must highlight all above-mentioned features on datasheet.</p>		
<p><b>Network Management</b></p>		
<p>1. Proposed Network Management System (NMS) must provide cohesive management and network-wide visibility, to increase IT efficiency and business agility. It also provides advanced network analytics for a full visibility into wired-wireless devices, IoT endpoints and applications, as well as predictive analysis for forward planning</p>		
<p>2. Must Provide a network-wide management system for the Network portfolio, NMS must provide a comprehensive set of components and tools for campus mobile infrastructure configuration, monitoring, security, device configuration, alert management, to accelerate, downtime resolution, and overall management.</p>		
<p>3. Network management should support Network device Software and firmware update for version baselining</p>		
<p>4. Network management should support Network analytics monitor the network bandwidth and key traffic patterns through advanced collection and reporting capabilities</p>		
<p>5. Support for Unified access provisioning provides a single set of policy enforcement instructions for both Wired and wireless users, with authentication strategies (LDAP, Radius, Active Directory) - BYOD (Bring Your Own Devices) integration</p>		

6. Agnostic support, Interfaces with VMware vCenter®, Microsoft Hyper-V® and Citrix™ Hypervisor for discovery and inventory		
7. Solution must create seamless, fully integrated management for virtual machine (VM) movements and ensures that network policies move with the Virtual Machine.		
8. Northbound interface RESTful APIs for application interoperability and ecosystem support		
9. Monitors and analyzes alerts, notifications and network performance from third-party devices in real time		
10. Rapid troubleshooting and isolation of network issues through one-click mitigation		
11. Must Provide insight in the network health with advanced graphical analytics on most problematic devices based on device state (CPU, memory, temperature)		
12. Integrated captive portal with credentials management for email, sms, social Login Facebook, Google.		

**SECTION VI - SCHEDULE OF REQUIREMENTS**

#	Description	Quantity	Delivery schedule (shipment) (To be delivered and installed within 4-6 weeks after the date of contract signing)
<b>Core Switch &amp; Accessories</b>			
1	Core Switch: 1RU 10GE L3 fixed chassis with 20 SFP+ ports, one optional module slot. Back to Front cooling. Includes AC power supply and cord. Ships with user manuals access card, rack mounts, and USB to RJ-45 adaptor.	1	
2	Dual-speed SFP+ optical transceiver. Supports multimode fiber over 850nm wavelength nominal) with an LC connector. Supports 1000BaseSX and 10GBASE-SR	10	
3	SFP-GIG-T -1000Base-T Gb Ethernet Transceiver (SFP Multiple Source Agreement, MSA). SFP to work at 1000 Mb/s speed and full-duplex mode.	4	
<b>Access Switch &amp; Accessories</b>			
4	PoE+24 Port GigE fixed chassis 24 RJ-45 PoE 10/100/1G BaseT, 2 fixed SFP (1G), 4 fixed SFP+ (1G/10G) uplink/stacking ports. 1RU size, 600W AC power supply Includes United Kingdom power cord, and 19” rack mount hardware.”	4	
5	PoE+ 48 Port GigE fixed chassis 48 RJ-45 PoE 10/100/1G BaseT, 2 fixed SFP (1G), 4 fixed SFP+ (1G/10G) uplink/stacking ports. 1RU size, 920W AC power supply. Includes United Kingdom power cord, guides, and “19” rack mount hardware.”	2	
<b>Wireless LAN (WiFi) Accessories</b>			
6	Mounting kit, Type A wall mount and ceiling mount with screws.	15	

7	Type A: Indoor Access Point Dual radio 2x22 4x44 802.11a/b/g/n/ac MU-MIMO AP, integrated antenna, 1x GbE, 1x USB opt BLE), 1x 48V DC power interface, 1x Console.	13	
8	Type B: Enterprise access point 802.11ac MU-MIMO AP, Dual-Radio, 11n 2x2:2 + 11ac 2x2:2, 1x GbE, BLE radio, 1x Console, and integrated antennas.	2	
9	Controller	1	
10	Network Designing and Documentation, Installation & Commissioning		
11	Network Management	1	
12	Training and Documentation	1	
13	1 Year SLA support & Maintenance	1	
14	Warranty: All equipment must come with 1 Year warranty from the Commissioning date	1	

## SECTION VII - STANDARD FORMS

### Notes on the sample Forms

1. **Form of Tender** – The form of tender must be completed by the tenderer and submitted with the tender documents. It must also be duly signed by duly authorized representatives of the tenderer.
2. **Price Schedule form** – The form of tender must be completed by the tenderer and submitted with the tender documents. It must also be duly signed by duly authorized representative(s) of the tenderer.
3. **Contract Form** – The Contract Form shall not be completed by the tenderer at the time of submitting the tender. The Contract Form shall be completed after contract award and should incorporate the accepted contract price.
4. **Confidential Business Questionnaire Form** – This form must be completed by the tenderer and submitted with the tender documents.
5. **Self- Declaration Form** – This form must be completed by the tenderer and submitted with the tender documents.
6. **Tender Security Form** – When required by the tender documents the tender shall provide the tender security either in the form included herein or in another format acceptable to the procuring entity.
7. **Performance Security Form** – The performance security form should not be completed by the tenderers at the time of tender preparation. Only the successful tenderer will be required to provide performance security in the form provided herein or in any other form acceptable to the procuring entity.
8. **Bank Guarantee for Advance Payment Form** – When Advance payment is requested for by the successful bidder and agreed by the procuring entity, this form must be completed fully and duly signed by the authorized officials of the bank.
9. **Team Composition and Task Assignments** This form must be completed by the tenderer and submitted with the tender documents and signed as required.
10. **CV's for Managerial and key technical staff form** This form must be completed by the tenderer and submitted with the tender documents and signed as required.
11. **Clients Reference form** This form must be completed by the tenderer and submitted with the tender documents and signed as required.
12. **Manufacturers Authorization Form** When required by the tender documents this form must be completed and submitted with the tender documents. This form will be completed by the manufacturer of the goods where the tenderer is an agent.
13. **Letter of Notification of Award**

**1. 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 \_\_\_\_\_ 2021

*[signature]* .....*In the capacity of]*

Duly authorized to sign tender for and on behalf of \_\_\_\_\_

Name of the Firm .....

Name of signatory: .....

In the capacity of:.....

Authorized Signature:.....

Company Rubber Stamp/ .....

**2. - PRICE SCHEDULE FOR SERVICES**

Name of tenderer \_\_\_\_\_ Tender Number \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

SN	ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL	MAKE /MODEL	COUNTRY OF ORIGIN	WARRENTY	DELIVER Y PERIOD
1	Core Switch as per specification	Pcs	1						
2	10G SFP	Pcs	10						
3	1G SFP	Pcs	4						
4	24 Port PoE+ Access Switch	Pcs	4						
5	48 Port PoE+ Access Switch	Pcs	2						
6	Access Points Type A	Pcs	13						
7	Access Points Type B	Pcs	2						
8	Mounting Kit	Pcs	14						
9	Controller	Lot	1						
10	Network Designing and Documentation, Installation & Commissioning	Lot	1						
11	Training and Documentation	Lot	1						
12	Network Management	Lot	1						
13	Twelve months Support and Maintenance	Lot	1						
14	Warranty for all the equipment	Lot							
<b>SUB-TOTAL COST</b>									
ADD 16% VAT									
<b>GRAND TOTAL COST</b>									

We undertake, if our tender is accepted, to render the services in accordance with the schedule rates specified herein above.

Name of the Firm: .....

Name of signatory: .....

In the capacity of:.....

Authorized Signature:.....

Date:.....

Company Rubber Stamp/Seal.....

### 3. 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 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 \_\_\_\_\_.

#### 4. 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 .....Code.....City/Town.....

Tel No. ....Website.....

Email..... Website:.....

Nature of Business .....

Registration Certificate No.....

Maximum value of business which you can handle at any one time – Kshs.

Name of your bankers .....

Branch.....

	<p>Part 2 (a) – Sole Proprietor</p> <p>Your name in full.....Age.....</p> <p>Nationality.....Country of Origin.....</p> <p>Citizenship details .....</p>																				
	<p>Part 2 (b) – Partnership</p> <p>Given details of partners as follows</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Nationality</th> <th>Citizenship details</th> <th>Shares</th> </tr> </thead> <tbody> <tr> <td>1. ....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>2. ....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>3. ....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>4. ....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> </tbody> </table>	Name	Nationality	Citizenship details	Shares	1. ....	.....	.....	.....	2. ....	.....	.....	.....	3. ....	.....	.....	.....	4. ....	.....	.....	.....
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1. ....	.....	.....	.....																		
2. ....	.....	.....	.....																		
3. ....	.....	.....	.....																		
4. ....	.....	.....	.....																		
	<p>Part 2 (c) – Registered Company</p> <p>Private or Public</p> <p>State the nominal and issued capital of company</p> <p>Nominal Kshs.</p> <p>Issued Kshs.</p> <p>Given details of all directors as follows</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Nationality</th> <th>Citizenship details</th> <th>Shares</th> </tr> </thead> <tbody> <tr> <td>1. ....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>2. ....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>3. ....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> </tbody> </table>	Name	Nationality	Citizenship details	Shares	1. ....	.....	.....	.....	2. ....	.....	.....	.....	3. ....	.....	.....	.....				
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1. ....	.....	.....	.....																		
2. ....	.....	.....	.....																		
3. ....	.....	.....	.....																		
	<p>Date.....Signature of Candidate.....</p>																				

**5. SELF DECLARATION FORMS (r 62)**

**REPUBLIC OF KENYA**

**SELF DECLARATION THAT THE PERSON/TENDERER WILL NOT ENGAGE IN ANY CORRUPT OR FRAUDULENT PRACTICE**

I, .....of P. O. Box ..... being a resident of

..... in the Republic of ..... do hereby make a statement as follows:-

A. **THAT** I am the Chief Executive/Managing Director/Principal Officer/Director of ..... (*insert name of the Company*) who is a Bidder in respect of **Tender No.** ..... for .....(*insert tender title/description*) for .....(*insert name of the Procuring entity*) and duly authorized and competent to make this statement.

B. **THAT** the aforesaid Bidder, its servants and/or agents /subcontractors will not engage in any corrupt or fraudulent practice and has not been requested to pay any inducement to any member of the Board, Management, Staff and/or employees and/or agents of .....(*insert name of the Procuring entity*) which is the procuring entity.

C. **THAT** the aforesaid Bidder, its servants and/or agents /subcontractors have not offered any inducement to any member of the Board, Management, Staff and/or employees and/or agents of .....(*name of the procuring entity*)

D. **THAT** the aforesaid Bidder will not engage /has not engaged in any corruptive practice with other bidders participating in the subject tender

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

.....  
(Title) (Signature) (Date)

Bidder's Official Stamp

## 6. 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 amount 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]

**7. 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 has 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 2021.

\_\_\_\_\_  
*Signature and seal of the Guarantors*

\_\_\_\_\_  
*[name of bank or financial institution]*

\_\_\_\_\_  
*[address]*

\_\_\_\_\_  
*[date]*

**8. 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]*

**9. TEAM COMPOSITION AND TASK ASSIGNMENTS**

<b>Name</b>	<b>Position</b>	<b>Task</b>

Name of Signatory: .....

In the capacity of:.....

Authorized Signature:.....

Company Rubber Stamp.....

**10. CV'S FOR KEY MANAGERIAL AND TECHNICAL STAFF FORM**

Attach the CV fitting in with the requirements of staff in the format below :-

Proposed position: .....

Name of Firm: .....

Name of Staff: .....

Profession: .....

Date of Birth: .....

Years with Firm: ..... Nationality: .....

Membership in Professional Societies: .....

Detailed tasks assigned: .....

**Key Qualifications:**

*(Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations).*

.....

**Education:**

*(Summarize college/university and other specialized education of staff member, giving names of schools, dates attended and degrees obtained).*

.....

**Employment Record:**

*(Starting with present position, list in reverse order every employment held. List all positions held by staff member since graduation, giving dates, names of employing organizations, titles of positions held, and locations of assignments).*

.....

**Certification:**

I, the undersigned, certify that these data correctly describes me, my qualifications and my experience.

.....Date: .....  
(Signature of staff member)

..... Date: .....  
(Signature of authorized representative of the firm)

Full name of staff member: .....

Full name of authorized representative: .....

**11. CLIENTS REFERENCE FORM**

Using the format below, provide information of each item required in the project under consideration that is relevant to works for which your firm was legally contracted/implemented in the last three years. Indicate the details for companies in the private/public sector where you have undertaken/are undertaking in the following format.

<b>NO.</b>	<b>NAME OF CLIENT</b>	<b>OF CONTRACT PERIOD</b>	<b>TELEPHONE</b>	<b>DATE OF CONTRACT</b>	<b>CONTRACT VALUE</b>
1					
2					
3					
4					
5					

Name of Signatory: .....

In the capacity of:.....

Authorized Signature:.....

Company Rubber Stamp.....

**12. MANUFACTURER'S AUTHORIZATION FORM**

To **[name of the Procuring entity]** .....

WHEREAS .....[ name of the manufacturer] who are established and reputable manufacturers of ..... [name and/or description of the goods] having factories at ..... [address of factory] do hereby authorize ..... [name and address of Agent] to submit a tender, and subsequently negotiate and sign the Contract with you against tender No. .... [reference of the Tender] for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per the General Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Tenders.

[signature for and on behalf of manufacturer]

**Note:** This letter of authority should be on the letterhead of the Manufacturer and should be signed by Chief Executive Officer or an Authorized person.

**13. LETTER OF NOTIFICATION OF AWARD**

Address of Procuring Entity

\_\_\_\_\_  
\_\_\_\_\_

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**