

# **PHILIPPINE BIDDING DOCUMENTS**

(As Harmonized with Development Partners)

# **Procurement of GOODS**

Government of the Republic of the Philippines

**FOR THE SUPPLY, DELIVERY, DESIGN, TESTING AND  
INSTALLATION OF NETWORK INFRASTRUCTURE  
REHABILITATION OF LTFRB CENTRAL OFFICE  
FOR CY 2021**

**PB 20-07**

**Sixth Edition  
July 2020**

# Table of Contents

<b>Glossary of Acronyms, Terms, and Abbreviations .....</b>	<b>2</b>
<b>Section I. Invitation to Bid.....</b>	<b>5</b>
<b>Section II. Instructions to Bidders.....</b>	<b>8</b>
1. Scope of Bid .....	9
2. Funding Information.....	9
3. Bidding Requirements .....	9
4. Corrupt, Fraudulent, Collusive, and Coercive Practices .....	9
5. Eligible Bidders.....	9
6. Origin of Goods .....	10
7. Subcontracts .....	10
8. Pre-Bid Conference .....	10
9. Clarification and Amendment of Bidding Documents .....	10
10. Documents comprising the Bid: Eligibility and Technical Components .....	10
11. Documents comprising the Bid: Financial Component .....	11
12. Bid Prices .....	11
13. Bid and Payment Currencies .....	12
14. Bid Security .....	12
15. Sealing and Marking of Bids .....	12
16. Deadline for Submission of Bids .....	13
17. Opening and Preliminary Examination of Bids .....	13
18. Domestic Preference .....	13
19. Detailed Evaluation and Comparison of Bids .....	13
20. Post-Qualification .....	14
21. Signing of the Contract .....	14
<b>Section III. Bid Data Sheet .....</b>	<b>15</b>
<b>Section IV. General Conditions of Contract.....</b>	<b>17</b>
1. Scope of Contract .....	18
2. Advance Payment and Terms of Payment .....	18
3. Performance Security .....	18
4. Inspection and Tests .....	18
5. Warranty .....	18
6. Liability of the Supplier .....	19
<b>Section V. Special Conditions of Contract .....</b>	<b>20</b>
<b>Section VI. Schedule of Requirements .....</b>	<b>26</b>
<b>Section VII. Technical Specifications .....</b>	<b>27</b>
<b>Section VIII. Checklist of Technical and Financial Documents .....</b>	<b>63</b>

# *Glossary of Acronyms, Terms, and Abbreviations*

**ABC** – Approved Budget for the Contract.

**BAC** – Bids and Awards Committee.

**Bid** – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender*. (2016 revised IRR, Section 5[c])

**Bidder** – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

**Bidding Documents** – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

**BIR** – Bureau of Internal Revenue.

**BSP** – Bangko Sentral ng Pilipinas.

**Consulting Services** – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

**CDA** - Cooperative Development Authority.

**Contract** – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

**CIF** – Cost Insurance and Freight.

**CIP** – Carriage and Insurance Paid.

**CPI** – Consumer Price Index.

**DDP** – Refers to the quoted price of the Goods, which means “delivered duty paid.”

**DTI** – Department of Trade and Industry.

**EXW** – Ex works.

**FCA** – “Free Carrier” shipping point.

**FOB** – “Free on Board” shipping point.

**Foreign-funded Procurement or Foreign-Assisted Project**–Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

**Framework Agreement** – Refers to a written agreement between a procuring entity and a supplier or service provider that identifies the terms and conditions, under which specific purchases, otherwise known as “Call-Offs,” are made for the duration of the agreement. It is in the nature of an option contract between the procuring entity and the bidder(s) granting the procuring entity the option to either place an order for any of the goods or services identified in the Framework Agreement List or not buy at all, within a minimum period of one (1) year to a maximum period of three (3) years. (GPPB Resolution No. 27-2019)

**GFI** – Government Financial Institution.

**GOCC** –Government-owned and/or –controlled corporation.

**Goods** – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term “related” or “analogous services” shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

**GOP** – Government of the Philippines.

**GPPB** – Government Procurement Policy Board.

**INCOTERMS** – International Commercial Terms.

**Infrastructure Projects** – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national

buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

**LGUs** – Local Government Units.

**NFCC** – Net Financial Contracting Capacity.

**NGA** – National Government Agency.

**PhilGEPS** - Philippine Government Electronic Procurement System.

**Procurement Project** – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

**PSA** – Philippine Statistics Authority.

**SEC** – Securities and Exchange Commission.

**SLCC** – Single Largest Completed Contract.

**Supplier** – refers to a citizen, or any corporate body or commercial company duly organized and registered under the laws where it is established, habitually established in business and engaged in the manufacture or sale of the merchandise or performance of the general services covered by his bid. (Item 3.8 of GPPB Resolution No. 13-2019, dated 23 May 2019). Supplier as used in these Bidding Documents may likewise refer to a distributor, manufacturer, contractor, or consultant.

**UN** – United Nations.

# ***Section I. Invitation to Bid***

**LAND TRANSPORTATION FRANCHISING AND  
REGULATORY BOARD**

**INVITATION TO BID FOR THE SUPPLY, DELIVERY, DESIGN,  
TESTING AND INSTALLATION OF NETWORK  
INFRASTRUCTURE REHABILITATION OF LTFRB CENTRAL  
OFFICE FOR CY 2021**

1. The Land Transportation Franchising and Regulatory Board, under the proposed 2021 LTFRB Budget and the 2021 Indicative APP, intends to apply the sum of Philippine Pesos **Ten Million Nine Hundred Eighty Four Thousand Six Hundred Forty Pesos only (Php 10,984,640.00)** being the Approved Budget for the Contract (ABC) for payment under the contract for the Supply, Delivery, Design, Testing and Installation of Network Infrastructure Rehabilitation of LTFRB Central Office for CY 2021. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The LTFRB now invites bids for the above Procurement Project. Delivery of the Goods is required for a period of NINETY (90) days from receipt of Notice to Proceed. Bidders should have completed, within the past five (5) years from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using a non-discretionary “*pass/fail*” criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA No. 5183.

4. Prospective Bidders may obtain further information from BAC Secretariat/Procurement Section, 3<sup>rd</sup> Floor-Central Office, Land Transportation Franchising and Regulatory Board (LTFRB), East Avenue, Quezon City and inspect the Bidding Documents at the address given below during 8:00 am to 5:00 pm from Monday to Friday.
5. A complete set of Bidding Documents may be acquired by interested Bidders on 05 January 2021 to 25 January 2021 from the given address and website(s) below and upon payment of a non-refundable fee for the Bidding Documents in the amount of Philippine Pesos Ten Thousand (Php 10,000.00).The Procuring Entity shall allow the bidder to present its proof of payment for the fees to be presented in person.

6. The LTFRB will hold a Pre-Bid Conference on 13 January 2021 at 2:00 pm at the Mini-Conference Room, 3<sup>rd</sup> Floor, East Avenue, Quezon City, which shall be open to prospective bidders.
7. Bids must be duly received by the BAC Secretariat through manual submission at the office address indicated below, on or before 25 January 2021 at 2:00 pm. Late bids shall not be accepted.
8. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 14.
9. Bid opening shall be on 25 January 2021 at 2:30 pm at the given address below. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
10. The LTFRB reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
11. For further information, please refer to:  
  
EVELYN G. ORCAJADA  
BAC Secretariat  
Procurement Unit, 3<sup>rd</sup> Floor, LTFRB Building,  
East Avenue, Quezon City  
Telefax No. 529-7128 loc 832  
Email add: procurement@LTFRB.gov.ph
12. You may visit the following websites:  
For downloading of Bidding Documents: [ltfrb.gov.ph](http://ltfrb.gov.ph)

05 January 2021

**NIDA P. QUIBIC**  
BAC Chairpers on



***Section II. Instructions to Bidders***

## **1. Scope of Bid**

The Procuring Entity, LTFRB wishes to receive Bids for the Supply, Delivery, Design, Testing and Installation of Network Infrastructure Rehabilitation of LTFRB Central Office for CY 2021, with identification number PB 20-07.

The Procurement Project (referred to herein as “Project”) is composed of 1 LOT , the details of which are described in Section VII (Technical Specifications).

## **2. Funding Information**

2.1. The GOP through the source of funding as indicated below for 2021 in the amount of Ten Million Nine Hundred Eighty Four Thousand Six Hundred Forty Pesos only ( Php 10,984,640.00).

2.2. *The source of funding is:*

a. NGA, the National Expenditure Program.

## **3. Bidding Requirements**

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manuals and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or **IB** by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have verified and accepted the general requirements of this Project, including other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

## **4. Corrupt, Fraudulent, Collusive, and Coercive Practices**

The Procuring Entity, as well as the Bidders and Suppliers, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex “I” of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

## **5. Eligible Bidders**

5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.

- 5.2. Foreign ownership limited to those allowed under the rules may participate in this Project.
- 5.3. Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA's CPI, must be at least equivalent to:
  - a. For the procurement of Non-expendable Supplies and Services: The Bidder must have completed a single contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.1 of the 2016 IRR of RA No. 9184.

## **6. Origin of Goods**

There is no restriction on the origin of goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN, subject to Domestic Preference requirements under **ITB** Clause 18.

## **7. Subcontracts**

- 7.1. The Procuring Entity has prescribed that:
  - a. Subcontracting is not allowed.

## **8. Pre-Bid Conference**

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and at its physical address as indicated in paragraph 6 of the **IB**.

## **9. Clarification and Amendment of Bidding Documents**

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

## **10. Documents comprising the Bid: Eligibility and Technical Components**

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section VIII (Checklist of Technical and Financial Documents)**.

- 10.2. The Bidder's SLCC as indicated in **ITB** Clause 5.3 should have been completed within five (5) years prior to the deadline for the submission and receipt of bids.
- 10.3. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. Similar to the required authentication above, for Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

## **11. Documents comprising the Bid: Financial Component**

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section VIII (Checklist of Technical and Financial Documents)**.
- 11.2. If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a certification issued by DTI shall be provided by the Bidder in accordance with Section 43.1.3 of the 2016 revised IRR of RA No. 9184.
- 11.3. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.4. For Foreign-funded Procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

## **12. Bid Prices**

- 12.1. Prices indicated on the Price Schedule shall be entered separately in the following manner:
  - a. For Goods offered from within the Procuring Entity's country:
    - i. The price of the Goods quoted EXW (ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf, as applicable);
    - ii. The cost of all customs duties and sales and other taxes already paid or payable;
    - iii. The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and
    - iv. The price of other (incidental) services, if any, listed in e.
  - b. For Goods offered from abroad:

- i. Unless otherwise stated in the **BDS**, the price of the Goods shall be quoted delivered duty paid (DDP) with the place of destination in the Philippines as specified in the **BDS**. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible source country.
- ii. The price of other (incidental) services, if any, as listed in **Section VII (Technical Specifications)**.

### **13. Bid and Payment Currencies**

- 13.1. For Goods that the Bidder will supply from outside the Philippines, the bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies, shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.
- 13.2. Payment of the contract price shall be made in:
  - a. Philippine Pesos.

### **14. Bid Security**

- 14.1. The Bidder shall submit a Bid Securing Declaration<sup>1</sup> or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 14.2. The Bid and bid security shall be valid within 120 days from final acceptance of goods. Any Bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

### **15. Sealing and Marking of Bids**

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

## 16. Deadline for Submission of Bids

- 16.1. The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB**.

## 17. Opening and Preliminary Examination of Bids

- 17.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

- 17.2. The preliminary examination of bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

## 18. Domestic Preference

- 18.1. The Procuring Entity will grant a margin of preference for the purpose of comparison of Bids in accordance with Section 43.1.2 of the 2016 revised IRR of RA No. 9184.

## 19. Detailed Evaluation and Comparison of Bids

- 19.1. The Procuring BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*," using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of the 2016 revised IRR of RA No. 9184.

- 19.2. If the Project allows partial bids, bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, as the case maybe. In this case, the Bid Security as required by **ITB** Clause 15 shall be submitted for each lot or item separately.

- 19.3. The descriptions of the lots or items shall be indicated in **Section VII (Technical Specifications)**, although the ABCs of these lots or items are indicated in the **BDS** for purposes of the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184. The NFCC must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder.

- 19.4. The Project shall be awarded as follows:

Option 1 – One Project having several items that shall be awarded as one contract.

- 19.5. Except for bidders submitting a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation, all Bids must include the NFCC computation pursuant to Section 23.4.1.4 of the 2016 revised IRR of RA No. 9184, which must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder. For bidders submitting the committed Line of Credit, it must be at least equal to ten percent (10%) of the ABCs for all the lots or items participated in by the prospective Bidder.

## **20. Post-Qualification**

- 20.1. Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law and stated in the **BDS**.

## **21. Signing of the Contract**

- 21.1. The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

## ***Section III. Bid Data Sheet***



# Bid Data Sheet

ITB Clause	
5.3	<p>a. For this project, “similar in nature” shall mean “Full package development of solutions which include the Installation, design, development, configuration, testing and implementation of customized software solution and needed hardware”.</p> <p>b. completed within five (5) years prior to the deadline for the submission and receipt of bids.</p>
7.1	<i>[Specify the portions of Goods to be subcontracted, which shall not be a significant or material component of the Project as determined by the Procuring Entity.]</i>
12	The price of the Goods shall be quoted DDP Quezon City, Philippines.
14.1	<p>The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts:</p> <p>a. The amount of not less than 219,692.80, if bid security is in cash, cashier’s/manager’s check, bank draft/guarantee or irrevocable letter of credit; or</p> <p>b. The amount of not less than 549,232.00 if bid security is in Surety Bond.</p>
20.2	Software Licenses and Warranty Certificates
21.2	4 additional hard copies of the first and second components of bids

## ***Section IV. General Conditions of Contract***

## **1. Scope of Contract**

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

Additional requirements for the completion of this Contract shall be provided in the **Special Conditions of Contract (SCC)**.

## **2. Advance Payment and Terms of Payment**

2.1. Advance payment of the contract amount is provided under Annex “D” of the revised 2016 IRR of RA No. 9184.

2.2. The Procuring Entity is allowed to determine the terms of payment on the partial or staggered delivery of the Goods procured, provided such partial payment shall correspond to the value of the goods delivered and accepted in accordance with prevailing accounting and auditing rules and regulations. The terms of payment are indicated in the **SCC**.

## **3. Performance Security**

Within ten (10) calendar days from receipt of the Notice of Award by the Bidder from the Procuring Entity but in no case later than prior to the signing of the Contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR of RA No. 9184.

## **4. Inspection and Tests**

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Project.

All reasonable facilities and assistance for the inspection and testing of Goods, including access to drawings and production data, shall be provided by the Supplier to the authorized inspectors at no charge to the Procuring Entity.

## **5. Warranty**

5.1. In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier as provided under Section 62.1 of the 2016 revised IRR of RA No. 9184.

5.2. The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall, repair or replace the defective Goods or parts thereof without cost to the Procuring Entity, pursuant to the Generic Procurement Manual.

## **6. Liability of the Supplier**

The Supplier's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Supplier is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

## *Section V. Special Conditions of Contract*

## Special Conditions of Contract

GCC Clause	
1	<p><b>Delivery and Documents –</b></p> <p>For purposes of the Contract, “EXW,” “FOB,” “FCA,” “CIF,” “CIP,” “DDP” and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of INCOTERMS published by the International Chamber of Commerce, Paris. The Delivery terms of this Contract shall be as follows:</p> <p><i>[For Goods supplied from abroad, state:]</i> “The delivery terms applicable to the Contract are DDP delivered <i>[indicate place of destination]</i>. In accordance with INCOTERMS.”</p> <p><i>[For Goods supplied from within the Philippines, state:]</i> “The delivery terms applicable to this Contract are delivered <i>[indicate place of destination]</i>. Risk and title will pass from the Supplier to the Procuring Entity upon receipt and final acceptance of the Goods at their final destination.”</p> <p>Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in Section VI (Schedule of Requirements).</p> <p>For purposes of this Clause the Procuring Entity’s Representative at the Project Site is <i>[indicate name(s)]</i>.</p> <p><b>Incidental Services –</b></p> <p>The Supplier is required to provide all of the following services, including additional services, if any, specified in Section VI. Schedule of Requirements:</p> <ol style="list-style-type: none"> <li>a. performance or supervision of on-site assembly and/or start-up of the supplied Goods;</li> <li>b. furnishing of tools required for assembly and/or maintenance of the supplied Goods;</li> <li>c. furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;</li> <li>d. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and</li> </ol>

The project specifically covers the following items:

1. Network Components which shall cover but is not limited to the rehabilitation of the obsolete network infrastructure of LTFRB Central Office; and
2. Installation of structured cabling.

The Contract price for the Goods shall include the prices charged by the Supplier for incidental services and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

**Spare Parts –**

The Supplier is required to provide all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- a. such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under this Contract; and

The spare parts and other components required are listed in **Section VI (Schedule of Requirements)** and the cost thereof are included in the contract price.

The Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spare parts or components for the Goods for a period of three times the warranty period.

Spare parts or components shall be supplied as promptly as possible, but in any case, within two (2) months of placing the order.

	<p><b>Packaging –</b></p> <p>The Supplier shall provide such packaging of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in this Contract. The packaging shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the Goods’ final destination and the absence of heavy handling facilities at all points in transit.</p> <p>The packaging, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified below, and in any subsequent instructions ordered by the Procuring Entity.</p> <p>The outer packaging must be clearly marked on at least four (4) sides as follows:</p> <p>Name of the Procuring Entity  Name of the Supplier  Contract Description  Final Destination  Gross weight  Any special lifting instructions  Any special handling instructions  Any relevant HAZCHEM classifications</p>
	<p>A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical. If not practical the packaging list is to be placed inside the outer packaging but outside the secondary packaging.</p> <p><b>Transportation –</b></p> <p>Where the Supplier is required under Contract to deliver the Goods CIF, CIP, or DDP, transport of the Goods to the port of destination or such other named place of destination in the Philippines, as shall be specified in this Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.</p> <p>Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the contract price.</p>



Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier obtains and presents to the Procuring Entity certification to this effect from the nearest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry are available but their schedule delays the Supplier in its performance of this Contract the period from when the Goods were first ready for shipment and the actual date of shipment the period of delay will be considered force majeure.

The Procuring Entity accepts no liability for the damage of Goods during transit other than those prescribed by INCOTERMS for DDP deliveries. In the case of Goods supplied from within the Philippines or supplied by domestic Suppliers risk and title will not be deemed to have passed to the Procuring Entity until their receipt and final acceptance at the final destination.

**Intellectual Property Rights –**

The Supplier shall indemnify the Procuring Entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof.

2.2

**Payment Terms / Progress Payment**

Payment Tranches per Milestone

<b>Activities / Milestones</b>	<b>Duration</b>	<b>% Progress</b>
Presentation and Approval of the Project Implementation Plan	10 days after the Issuance of Notice to Proceed	12% of the contract price
Delivery of Networking Equipment and Materials	Upon approval of the LTFRB Key Personnel (inspection)	45% of the contract price
Deployment, Installation, Configuration, Testing and full Implementation of the Network Infrastructure	Upon approval of the LTFRB Key Personnel (inspection)	33% of the contract price

	Completion of the conduct of training and submission of all documentation.	Upon completion of the Knowledge Transfer Training	5% of the contract price	
	Retention Fee	After the completion of the Support and Maintenance	5% of the contract price	
4	<p><b>Testing and Acceptance</b></p> <ul style="list-style-type: none"> <li>• The testing and acceptance of the project shall be approved by the LTFRB Key Personnel.</li> <li>• The Goods and Services must conform with the Technical Specifications.</li> </ul>			

## ***Section VI. Schedule of Requirements***

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

<b>Item Number</b>	<b>Description</b>	<b>Quantity</b>	<b>Total</b>	<b>Delivered, Weeks/Months</b>
1 LOT	Supply, Delivery, Design, Testing and Installation of Network Infrastructure Rehabilitation of LTFRB Central Office.			Within 90 days upon issuance of Notice to Proceed.

## ***Section VII. Technical Specifications***

# Technical Specifications

Item	Specification	Statement of Compliance
		<p><i>[Bidders must state here either “Comply” or “Not Comply” against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer’s un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]</i></p>
1.0	<p><b>TECHNICAL SPECIFICATIONS</b></p> <p><b>Multilayer Core Switch – 2 Units</b></p>	

**SPECIFICATIONS**

1 RU Form Factor 24-port 10Gig switch with Network Advantage License

Must deliver up-to 480 Gbps Full Duplex of switching capacity and 360 Mpps of forwarding rate

Must have StackWise-Virtual network system virtualization technology that increases operational efficiency and boosts nonstop communications and scaled system bandwidth

Must have Dual redundant, modular power supplies and three modular fans providing redundancy

**SWITCH CAPABILITIES**

.Unified Access Data Plane (UADP) Application-Specific Integrated Circuit (ASIC) ready for next-generation technologies with its programmable pipeline, microengine capabilities, and template-based, configurable allocation of Layer 2 and Layer 3 forwarding, Access Control Lists (ACLs), and Quality-of-Service (QoS) entries

- Intel® 2.4-GHz x86 CPU with up to 120 GB of USB 3.0 or up to 960 GB of SATA SSD storage for container-based application hosting
- Platinum-rated AC power supplies
- Up to 512,000 Flexible NetFlow (FNF) entries in hardware
- Up to 36 MB of unified buffer per ASIC
- Up to 64,000 routing entries (IPv4/IPv6) for high-end campus core and aggregation deployments
- IPv6 support in hardware, providing wire-rate forwarding for IPv6 networks
- IEEE 802.1ba AV Bridging (AVB) built in to provide a better AV experience through improved time synchronization and QoS
- Precision Time Protocol (PTP; IEEE 1588v2) provides accurate clock synchronization with sub-microsecond accuracy, making it suitable for distribution and synchronization of time and frequency over the network
- Dual-stack support for IPv4/IPv6 and

	<p>dynamic hardware forwarding table allocations, for ease of IPv4-to-IPv6 migration</p> <ul style="list-style-type: none"> <li>• Support for both static and dynamic NAT and Port Address Translation (PAT)</li> <li>• Scalable routing (IPv4, IPv6, and multicast) tables and Layer 2 tables</li> <li>• IOS XE Software, a modern operating system for the enterprise with support for model-driven programmability, on-box Python scripting, streaming telemetry, container-based application hosting, and patching for critical bug fixes. The OS also has built-in defenses to protect against runtime attacks</li> <li>• StackWise Virtual technology, a network system virtualization technology that increases operational efficiency and boosts nonstop communications and scaled system bandwidth</li> </ul>	
	<p><b>SD-Access Features:</b></p> <ul style="list-style-type: none"> <li>• Policy-based automation from edge to cloud</li> <li>• Segmentation and micro-segmentation made easy, with predictable performance and scalability</li> <li>• Automation and network assurance through the DNA Center Appliance</li> <li>• Faster launch of new business services and significantly improved issue resolution time</li> <li>• Plug and Play (PnP) enabled: A simple, secure, unified, and integrated offering to ease new branch or campus device rollouts or updates to an existing network</li> </ul> <p><b>Advanced security:</b></p> <ul style="list-style-type: none"> <li>• Encrypted Traffic Analytics (ETA): You benefit from the power of machine learning to identify and take actions toward threats or anomalies in your network, including malware detection in encrypted traffic and distributed anomaly detection. Additionally, ETA is able to detect vulnerable implementations in encrypted traffic</li> <li>• Support for AES-256 with the powerful MACsec 256-bit encryption algorithm available on all models</li> <li>• Trustworthy systems: Secure Unique Device Identification (SUDI)</li> </ul>	

<p>support for Plug and Play, enabling tamper-proof device identity capability, which secures zero-touch provisioning by allowing your device to show a certificate to the server to be able to get onto your network</p> <p><b>IP Routing Protocols</b></p> <ul style="list-style-type: none"> <li>●IP unicast routing protocols (including static; Routing Information Protocol version 1 [RIPv1], version 2 [RIPv2], and next generation [RIPng]; and Open Shortest Path First [OSPF] routed access) are supported for small network routing applications with the Network Essentials stack</li> <li>●Advanced IP unicast routing protocols (such as OSPF, Enhanced Interior Gateway Routing Protocol [EIGRP], Border Gateway Protocol Version 4 [BGPv4], and Intermediate System-to-Intermediate System Version 4 [IS-ISv4]) are supported for load balancing and for constructing scalable LANs. IPv6 routing (using OSPFv3 and EIGRPv6) is supported in hardware for maximum performance</li> <li>● Protocol-Independent Multicast (PIM) for IP multicast routing is supported, including PIM Sparse Mode (PIM SM), bidirectional PIM, and Source-Specific Multicast (SSM)</li> <li>●IPv6 addressing is supported on interfaces with appropriate show commands for monitoring and troubleshooting</li> </ul> <p>Must have 10/100/1000 RJ-45 console and management port</p> <p>Must have the following industry standards:</p> <ul style="list-style-type: none"> <li>-IEEE 802.1s</li> <li>-IEEE 802.1w</li> <li>-IEEE 802.1x</li> <li>-IEEE 802.1x-Rev</li> <li>-IEEE 802.3ad</li> <li>- IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports</li> <li>-IEEE 802.1D Spanning Tree Protocol</li> <li>-IEEE 802.1p CoS prioritization</li> <li>-IEEE 802.1Q VLAN</li> <li>-IEEE 802.3 10BASE-T specification</li> <li>-IEEE 802.3u 100BASE-TX specification</li> <li>-IEEE 802.3ab 1000BASE-T specification</li> </ul>	
---	--



	<p>-IEEE 802.3z 1000BASE-X specification</p> <p>-RMON I and II standards</p> <p>-SNMPv1, SNMPv2c, and SNMPv3</p> <p>Must support Operating Temperature of 32° to 104°F (0° to 40°C) Operation up to 6000 feet at 55°C and 13,000 feet at 45°C</p> <p>Must have a Mean-Time-Between-Failures (MTBF) of 277,310</p> <p>Must Support Relative Humidity of Ambient (noncondensing) operating: 5% to 90%</p> <p>Must support up to 64,000 Media Access Control (MAC) Entries</p> <p>Must support up to 64,000 IPv4 routes</p> <p>Must support up to 32,000 IPv6 routes</p> <p>Must support up to 512,000 FNF Entries</p> <p>Must support up to 18,000 QoS ACL Entries</p> <p>Must support up to 18,000 Security ACL Entries</p> <p>Must support up to 16 GB DRAM</p> <p>Must support up to 16 GB Flash</p> <p>Must support up to 4094 Total VLAN IDs</p> <p>Must support up to 1000 Total Switched Virtual Interfaces (SVIs)</p> <p>Must support up to 9198 bytes of Jumbo Frames</p>	
1.1	<b>Console Cable 6ft with USB Type A and mini-B- Additional Items 2 units</b>	
1.2	<b>10GBASE-SR SFP Module, Enterprise-Class -38 UNITS</b>	

1.3	<b>1000BASE-T SFP transceiver module for Category 5 copper wire -8 UNITS</b>	
1.4	<b>Warranty 3YR 8x5xNBD</b>	
2.0	<p><b>Access Switches 48 PORT – 6 UNITS</b></p> <p>Specifications:</p> <p>1 RU Form Factor 48-port, 4 x 10G, Network Essentials</p> <p>Must deliver up-to 176 Gbps Full Duplex of switching capacity and 130.95 Mpps of forwarding rate</p>	
	<p><b>Switch Capabilities</b></p> <ul style="list-style-type: none"> <li>● Up to 48ports</li> <li>● Flexible downlink options</li> <li>● Operational efficiency with optional backplane stacking, supporting stacking bandwidth up to 80 Gbps</li> <li>● UADP 2.0 Mini with integrated CPU offers customers optimized scale with better cost structure</li> <li>● Enhanced security with AES-128 MACsec encryption, policy-based segmentation, and trustworthy systems</li> <li>● Layer 3 capabilities, including OSPF, EIGRP, ISIS, RIP, and routed access</li> <li>● Advanced network monitoring using Full Flexible NetFlow</li> <li>● Software-Defined Access (SD-Access): <ul style="list-style-type: none"> <li>○ Simplified operations and deployment with policy-based automation from edge to cloud managed with Identity Services Engine (ISE)</li> <li>○ Network assurance and improved resolution time through DNA Center</li> </ul> </li> <li>● Plug and Play (PnP) enabled: A simple, secure, unified, and integrated offering to ease new branch or campus device rollouts or updates to an existing network</li> <li>● A Common Licensing based operating system for the enterprise product family with support for model-driven programmability and streaming telemetry</li> <li>● ASIC with programmable pipeline and micro-engine capabilities, along with template-based, configurable</li> </ul>	

<p>allocation of Layer 2 and Layer 3 forwarding, Access Control Lists (ACLs), and Quality of Service (QoS) entries</p> <p><b>Resiliency and high availability</b></p> <ul style="list-style-type: none"> <li>• Automated device provisioning is the ability to automate the process of upgrading software images and installing configuration files on switches when they are being deployed in the network for the first time. This provides turnkey solutions such as Plug and Play and Preboot Execution Environment (PXE) that enable an effortless and automated deployment.</li> <li>• API-driven configuration is available with modern network switches. It supports a wide range of automation features and provides robust open APIs over NETCONF and RESTCONF using YANG data models for external tools, both off the shelf and custom built, to automatically provision network resources.</li> <li>• Granular visibility enables model-driven telemetry to stream data from a switch to a destination. The data to be streamed is identified through subscription to a data set in a YANG model. The subscribed data set is streamed to the destination at specified intervals. Additionally, the switch software enables the push model. It provides near-real-time monitoring of the network, leading to quick detection and rectification of failures.</li> <li>• Seamless software upgrades and patching supports OS resilience. The switch supports cold patching with reboot, which provides fixes for critical bugs and security vulnerabilities between regular maintenance releases. This support lets you add patches without having to wait for the next maintenance release. Cold patching requires the switch to be rebooted after patching to allow the changes to take effect.</li> <li>• High availability: The switches support high-availability features, including the following: <ul style="list-style-type: none"> <li>◦ Cross-stack EtherChannel provides the ability to configure EtherChannel technology across different members</li> </ul> </li> </ul>	
--	--

<p>of the stack for high resiliency.</p> <ul style="list-style-type: none"> <li>◦ IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) provides rapid spanning tree convergence independent of spanning tree timers and also offers the benefit of Layer 2 load balancing and distributed processing.</li> <li>◦ Per-VLAN Rapid Spanning Tree (PVRST+) allows rapid spanning tree (IEEE 802.1w) reconvergence on a per-VLAN spanning tree basis, providing simpler configuration than MSTP. In both MSTP and PVRST+ modes, stacked units behave as a single spanning tree node.</li> <li>◦ Switch-port auto-recovery (“err-disable” recovery) automatically attempts to reactivate a link that is disabled because of a network error.</li> </ul> <p><b>Smart operation</b></p> <ul style="list-style-type: none"> <li>● WebUI is an embedded GUI-based device-management tool that provides the ability to provision the device, to simplify device deployment and manageability, and to enhance the user experience. It comes with the default image, so there is no need to enable anything or install any license on the device. You can use WebUI to build configurations, and to monitor and troubleshoot the device without having CLI expertise.</li> <li>● The switches have an embedded RFID tag that facilitates easy asset and inventory management using commercial RFID readers.</li> <li>● The switches support both front and back blue beacon LEDs for easy identification of the switch being accessed.</li> <li>● The switches provide optimum power saving with Energy Efficient Ethernet (EEE) on the RJ-45 ports and low-power operations for industry best-in-class power management and power consumption capabilities. The ports support reduced power modes so that ports not in use can move into a lower power utilization state. Other efficient switch operation features are as follows: <ul style="list-style-type: none"> <li>◦ Per-port power consumption command allows customers to specify a maximum power setting on an</li> </ul> </li> </ul>	
--	--

	<p>individual port.</p> <ul style="list-style-type: none"> <li>• The switches have hardware support to connect a Bluetooth dongle to your switch, enabling you to use this wireless interface as an IP management port interface. The port can be used for configuration and troubleshooting using WebUI or the Command-Line Interface (CLI), and to transfer images and configurations.</li> </ul> <p><b>IP Routing Protocols</b>  The Express Forwarding hardware routing architecture delivers extremely high-performance IP routing in the Series switches, based on:</p> <ul style="list-style-type: none"> <li>• IP unicast routing protocols (including static, Routing Information Protocol Version 1 [RIPv1], RIPv2, RIPv6, and Open Shortest Path First [OSPF], Routed Access) are supported for small network routing applications with the Network Essentials stack. Equal-cost routing facilitates Layer 3 load balancing and redundancy across the stack.</li> <li>• Protocol-Independent Multicast (PIM) for IP multicast routing is supported, including PIM Sparse Mode (PIM SM), bidirectional PIM, and Source-Specific Multicast (SSM)</li> <li>• IPv6 addressing is supported on interfaces with appropriate show commands for monitoring and troubleshooting</li> </ul> <p>Must have Ethernet management port: RJ-45 connectors, 4-pair Cat 5 UTP cabling</p>	
	<p><b>Must have the following industry standards:</b>  IEEE802.1s  IEEE 802.1w  IEEE 802.1x  IEEE 802.1x-Rev  IEEE 802.3ad  IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports  IEEE 802.1D Spanning Tree Protocol  IEEE 802.1p CoS prioritization  IEEE 802.1Q VLAN  IEEE 802.3 10BASE-T specification  IEEE 802.3u 100BASE-TX specification  IEEE 802.3ab 1000BASE-T specification</p>	

	<p>IEEE 802.3z 1000BASE-X specification RMON I and II standards SNMPv1, v2c, and v3</p>	
	<p><b>EMI and EMC compliance:</b> FCC Part 15 (CFR 47) Class A ICES-003 Class A EMI and EMC compliance: FCC Part 15 (CFR 47) Class A ICES-003 Class A EN 55032 Class A CISPR 32 Class A AS/NZS 3548 Class A BSMI Class A VCCI Class A CISPR 35 EN 55024, EN300 386*, EN 61000-3-2, EN 61000-3-3 EN 61000-6-1</p>	
	<p>Must support perating temperature* and altitudes:</p> <ul style="list-style-type: none"> <li>● -5°C to +45°C, up to 5000 feet (1500m)</li> <li>● -5°C to +40°C, up to 10,000 feet (3000m)</li> </ul> <p>* Minimum ambient temperature for cold start is 32°F (0°C)</p> <p>Must have a Mean-Time-Between-Failures (MTBF) of 503,400</p> <p>Must Support Relative Humidity of Ambient (noncondensing) operating: 5% to 90% noncondensing</p> <p>Must Support up to 80 Gbps of Stacking bandwidth</p> <p>Must support up to 16,000 Media Access Control (MAC) Entries</p> <p>Must support up to 11,000 (8,000 direct routes and 3,000 indirect routes) Total number of IPv4 routes (ARP plus learned routes)</p> <p>Must support up to 3,000 IPv4 routes</p> <p>Must support up to 1,500 IPv6 routes</p> <p>Must support up to 1,000 Multicast Entries</p> <p>Must support up to 1000 QoS Scale Entries</p>	

	<p>Must support up to 1500 ACL Scale Entries</p> <p>Must support up to 6 MB packet buffer</p> <p>Must support up to 16,000 Flexible NetFlow (FNF) entries</p> <p>Must support up to 2 GB DRAM</p> <p>Must support up to 4 GB Flash</p> <p>Must support up to 4096 Total VLAN IDs</p> <p>Must support up to 512 Total Switched Virtual Interfaces (SVIs)</p> <p>Must support up to 9198 bytes of Jumbo Frames</p>	
2.1	<b>Warranty &amp; Support 3YR 8X5XNBD</b>	
2.2	<b>Stack Module with 50CM Type 4 Stacking Cable -6 UNITS</b>	
3.0	<b>Access Switches 24 PORT – 6 UNITS</b>	
	<p>Specifications</p> <p>1 RU Form Factor 24-port PoE+, 4 x 10G, Network Essentials</p> <p>Must deliver up-to 128 Gbps Full Duplex of switching capacity and 95.23 Mpps of forwarding rate</p>	
	<p><b>Switch Capabilities</b></p> <ul style="list-style-type: none"> <li>● Up to 24 ports with 370 Watts of full Power over Ethernet Plus (PoE+) capability</li> <li>● Flexible downlink options</li> <li>● Operational efficiency with optional backplane stacking, supporting stacking bandwidth up to 80 Gbps</li> <li>● UADP 2.0 Mini with integrated CPU offers customers optimized scale with better cost structure</li> <li>● Enhanced security with AES-128 MACsec encryption, policy-based segmentation, and trustworthy systems</li> <li>● Layer 3 capabilities, including OSPF, EIGRP, ISIS, RIP, and routed access</li> <li>● Advanced network monitoring using Full Flexible NetFlow</li> </ul>	

	<ul style="list-style-type: none"> <li>● Software-Defined Access (SD-Access): <ul style="list-style-type: none"> <li>◦ Simplified operations and deployment with policy-based automation from edge to cloud managed with Identity Services Engine (ISE)</li> <li>◦ Network assurance and improved resolution time through DNA Center</li> </ul> </li> <li>● Plug and Play (PnP) enabled: A simple, secure, unified, and integrated offering to ease new branch or campus device rollouts or updates to an existing network</li> <li>● A Common Licensing based operating system for the enterprise product family with support for model-driven programmability and streaming telemetry</li> <li>● ASIC with programmable pipeline and micro-engine capabilities, along with template-based, configurable allocation of Layer 2 and Layer 3 forwarding, Access Control Lists (ACLs), and Quality of Service (QoS) entries</li> </ul>	
	<p><b>Resiliency and high availability</b></p> <ul style="list-style-type: none"> <li>● Automated device provisioning is the ability to automate the process of upgrading software images and installing configuration files on switches when they are being deployed in the network for the first time. This provides turnkey solutions such as Plug and Play and Preboot Execution Environment (PXE) that enable an effortless and automated deployment.</li> <li>● API-driven configuration is available with modern network switches. It supports a wide range of automation features and provides robust open APIs over NETCONF and RESTCONF using YANG data models for external tools, both off the shelf and custom built, to automatically provision network resources.</li> <li>● Granular visibility enables model-driven telemetry to stream data from a switch to a destination. The data to be streamed is identified through subscription to a data set in a YANG model. The subscribed data set is streamed to the destination at specified intervals. Additionally, the switch software enables the push model. It provides near-real-time</li> </ul>	



	<p>monitoring of the network, leading to quick detection and rectification of failures.</p> <ul style="list-style-type: none"> <li>● Seamless software upgrades and patching supports OS resilience. The switch supports cold patching with reboot, which provides fixes for critical bugs and security vulnerabilities between regular maintenance releases. This support lets you add patches without having to wait for the next maintenance release. Cold patching requires the switch to be rebooted after patching to allow the changes to take effect.</li> <li>● High availability: The switches support high-availability features, including the following: <ul style="list-style-type: none"> <li>◦ Cross-stack EtherChannel provides the ability to configure EtherChannel technology across different members of the stack for high resiliency.</li> <li>◦ IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) provides rapid spanning tree convergence independent of spanning tree timers and also offers the benefit of Layer 2 load balancing and distributed processing.</li> <li>◦ Per-VLAN Rapid Spanning Tree (PVRST+) allows rapid spanning tree (IEEE 802.1w) reconvergence on a per-VLAN spanning tree basis, providing simpler configuration than MSTP. In both MSTP and PVRST+ modes, stacked units behave as a single spanning tree node.</li> <li>◦ Switch-port auto-recovery ("err-disable" recovery) automatically attempts to reactivate a link that is disabled because of a network error.</li> </ul> </li> </ul>	
	<p><b>Smart operation</b></p> <ul style="list-style-type: none"> <li>● WebUI is an embedded GUI-based device-management tool that provides the ability to provision the device, to simplify device deployment and manageability, and to enhance the user experience. It comes with the default image, so there is no need to enable anything or install any license on the device. You can use WebUI to build configurations, and to monitor and troubleshoot the device without having CLI expertise.</li> <li>● The switches have an embedded RFID tag that facilitates easy asset and</li> </ul>	

	<p>inventory management using commercial RFID readers.</p> <ul style="list-style-type: none"> <li>● The switches support both front and back blue beacon LEDs for easy identification of the switch being accessed.</li> <li>● The switches provide optimum power saving with Energy Efficient Ethernet (EEE) on the RJ-45 ports and low-power operations for industry best-in-class power management and power consumption capabilities. The ports support reduced power modes so that ports not in use can move into a lower power utilization state. Other efficient switch operation features are as follows: <ul style="list-style-type: none"> <li>◦ Per-port power consumption command allows customers to specify a maximum power setting on an individual port.</li> </ul> </li> <li>● The switches have hardware support to connect a Bluetooth dongle to your switch, enabling you to use this wireless interface as an IP management port interface. The port can be used for configuration and troubleshooting using WebUI or the Command-Line Interface (CLI), and to transfer images and configurations.</li> </ul>	
	<p><b>IP Routing Protocols</b></p> <p>The Express Forwarding hardware routing architecture delivers extremely high-performance IP routing in the Series switches, based on:</p> <ul style="list-style-type: none"> <li>● IP unicast routing protocols (including static, Routing Information Protocol Version 1 [RIPv1], RIPv2, RIPv6, and Open Shortest Path First [OSPF], Routed Access) are supported for small network routing applications with the Network Essentials stack. Equal-cost routing facilitates Layer 3 load balancing and redundancy across the stack.</li> <li>● Protocol-Independent Multicast (PIM) for IP multicast routing is supported, including PIM Sparse Mode (PIM SM), bidirectional PIM, and Source-Specific Multicast (SSM)</li> <li>● IPv6 addressing is supported on interfaces with appropriate show commands for monitoring and troubleshooting</li> </ul> <p>Must have Ethernet management port:</p>	

	<p>RJ-45 connectors, 4-pair Cat 5 UTP cabling</p> <p><b>Must have the following industry standards:</b></p> <p>IEEE 802.1s  IEEE 802.1w  IEEE 802.1x  IEEE 802.1x-Rev  IEEE 802.3ad  IEEE 802.3af  IEEE 802.3at  IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports  IEEE 802.1D Spanning Tree Protocol  IEEE 802.1p CoS prioritization  IEEE 802.1Q VLAN  IEEE 802.3 10BASE-T specification  IEEE 802.3u 100BASE-TX specification  IEEE 802.3ab 1000BASE-T specification  IEEE 802.3z 1000BASE-X specification  RMON I and II standards  SNMPv1, v2c, and v3</p> <p><b>EMI and EMC compliance:</b></p> <p>FCC Part 15 (CFR 47) Class A  ICES-003 Class A  EMI and EMC compliance:  FCC Part 15 (CFR 47) Class A  ICES-003 Class A  EN 55032 Class A  CISPR 32 Class A  AS/NZS 3548 Class A  BSMI Class A  VCCI Class A  CISPR 35  EN 55024, EN300 386*, EN 61000-3-2, EN 61000-3-3  EN 61000-6-1</p> <p>Must support operating temperature* and altitudes:</p> <ul style="list-style-type: none"> <li>● -5°C to +45°C, up to 5000 feet (1500m)</li> <li>● -5°C to +40°C, up to 10,000 feet (3000m)</li> </ul> <p>* Minimum ambient temperature for cold start is 32°F (0°C)</p> <p>Must have a Mean-Time-Between-Failures (MTBF) of 390,310</p> <p>Must Support Relative Humidity of Ambient (noncondensing) operating: 5% to 90% noncondensing</p>	
--	---	--

	<p>Must Support up to 80 Gbps of Stacking bandwidth</p> <p>Must support up to 16,000 Media Access Control (MAC) Entries</p> <p>Must support up to 11,000 (8,000 direct routes and 3,000 indirect routes) Total number of IPv4 routes (ARP plus learned routes)</p> <p>Must support up to 3,000 IPv4 routes</p> <p>Must support up to 1,500 IPv6 routes</p> <p>Must support up to 1,000 Multicast Entries</p> <p>Must support up to 1000 QoS Scale Entries</p> <p>Must support up to 1500 ACL Scale Entries</p> <p>Must support up to 6 MB packet buffer</p> <p>Must support up to 16,000 Flexible NetFlow (FNF) entries</p> <p>Must support up to 2 GB DRAM</p> <p>Must support up to 4 GB Flash</p> <p>Must support up to 4096 Total VLAN IDs</p> <p>Must support up to 512 Total Switched Virtual Interfaces (SVIs)</p> <p>Must support up to 9198 bytes of Jumbo Frames</p>	
3.1	<b>Warranty &amp; Support 3YR 8X5XNBD</b>	
3.2	<b>Stack Module with 50CM Type 4 Stacking Cable- 6 UNITS</b>	
4.0	<b>Cloud Based UTM Firewall High Availability Setup -2 UNITS</b>	
	Specifications	
	<p>Cloud Managed accessible using Dashboard</p> <p>Stateful firewall, 1;1NAT, DMZ, DHCP</p>	

	<p>Layer 3, Layer 7 and Geography-based firewall rules</p> <p>Malware protection, Intrusion-prevention sensor &amp; URL filtering capabilities, Web-search filtering</p>	
	BGP, OSPF and Static Routing Protocol	
	<p>Management: Centralized policy and configuration, Zero-touch remote deployment, Automatic firmware upgrades and security patches, Template-based multi-network management, Org-level two-factor authentication and single sign-on, Role-based administration with change logging and alerts</p> <p>Traffic shaping Application bandwidth limiting and prioritization</p> <p>Automated site-to-site (IPsec) VPN for hub-and-spoke or mesh topologies</p> <p>CAT 6 LTE modem for failover or single uplink and Cellular Failover rules</p> <p>WAN link aggregation or Load Balancing</p> <p>DNS Protection, SaaS Optimization, HTTPS Inspection</p> <p>SD-WAN: dual-active VPN with policy-based routing and dynamic path selection</p>	
	<p>Web Application Monitoring and WAN Links Monitoring</p> <p>Automatic firmware upgrades and security patches</p> <p>Automated MPLS to VPN failover within seconds of a connection failure</p> <p>Stateful firewall throughput: 4Gbps</p> <p>Advanced Security throughput: 2Gbps</p>	
	Recommended maximum concurrent client VPN tunnels: 500	
	Maximum Concurrent VPN Tunnels: 3000	

	VPN throughput: 1Gbps Recommended for campus (up to 2000 users)	
	WAN Interfaces: 2 x 10GbE SFP+, 1 x USB (cellular failover)	
	LAN Interface: 8 x GbE (RJ45), 8 x GbE (SFP), 8 x 10GbE (SFP+)	
	Web Caching: 128Gb SSD	
	Monitoring and Reporting: Throughput, connectivity monitoring, and email alerts, Detailed historical per-port and per-client usage statistics, Application usage statistics, Org-level change logs for compliance and change management, VPN tunnel and latency monitoring, Network asset discovery and user identification, Periodic emails with key utilization metrics, Device performance and utilization reporting, Netflow support, Syslog integration	
	Power: Modular 100-220V 50/60Hz AC, 2 x 250WAC PSU	
	Environment: Operating temperature: 32°F to 104°F (0°C to 40°C)	
4.2	<b>3 years Advanced Security License- 1 UNIT</b>	
5.0	<b>Cloud Managed Wireless Access Point – 12 UNITS</b>  Built-in WIPS for threat detection and remediation  dual-radio, cloud-managed 2x2:2 802.11ac Wave 2 access  Up to 1.3 Gbps aggregate frame rate  Integrated enterprise security and guest access  multiple output (MIMO) with two spatial streams  Layer 7 application traffic identification and shaping  2.4 GHz 802.11b/g/n/ac client access	

	<p>radio</p> <p>5 GHz 802.11a/n/ac Wave 2 client access radio</p> <p>Up to 256-QAM on both 2.4 GHz and 5 GHz bands</p> <p>Power consumption: 15 W max (802.3af)</p>	
	1x 10/100/1000 BASE-T Ethernet (RJ45)	
	1x DC power connector (5.5 mm x 2.5 mm, center positive)	
	Power over Ethernet: 37-57 V (802.3af compatible)	
	<p>Desktop, ceiling and wall mount capable</p> <p>Two security screw options included</p> <p>Concealed mount plate with anti-tamper cable bay</p> <p>Operating temperature: 32 °F to 104 °F (0 °C to 40 °C)</p> <p>Humidity: 5% to 95% non-condensing</p> <p>Integrated Layer 7 firewall with mobile device policy management</p> <p>VLAN tagging (802.1Q) and tunneling with IPSec VPN</p> <p>WEP, WPA, WPA2-PSK, WPA2-Enterprise with 802.1X</p> <p>EAP-TLS, EAP-TTLS, EAP-MSCHAPv2, EAP-SIM</p> <p>TKIP and AES encryption</p> <p>Enterprise Mobility Management (EMM) &amp; Mobile Device Management (MDM) integration</p>	
6.0	<p><b>Cloud-Managed Wireless Access Point High Density – 13 UNITS</b></p> <p>4 radios: 2.4 and 5 GHz, dual-band</p>	

	<p>WIDS/WIPS, Bluetooth</p> <p>2x2:2 UL/DL MU-MIMO 802.11ax</p> <p>Up to 1.7 Gbps aggregate frame rate</p> <p>Real-time WIDS/WIPS with alerting and automatic rogue AP containment with Air Marshal</p>	
	<p>2.4 GHz Bluetooth Low Energy (BLE) radio with Beacon support</p> <p>Layer 7 application traffic identification and shaping</p> <p>2.4 GHz 802.11b/g/n/ax client access radio</p> <p>5 GHz 802.11a/n/ac/ax client access radio</p>	
	<p>Up to 1024 QAM on both 2.4 GHz and 5 GHz bands</p> <p>Power consumption: 15 W max (802.3af)</p> <p>1x 10/100/1000 BASE-T Ethernet</p> <p>1x DC power connector (5.5 mm x 2.5 mm, center positive)</p> <p>Bubble level on mounting cradle for accurate horizontal wall mounting</p> <p>Desktop, ceiling and wall mount capable</p> <p>Two security screw options included</p> <p>Kensington lock hard point</p> <p>Operating temperature: 32 °F to 104 °F (0 °C to 40 °C)</p>	
	Humidity: 5 to 95% non-condensing	
	Integrated Layer 7 firewall with mobile device policy management	
	VLAN tagging (802.1Q) and tunneling with IPSec VPN	



	<p>WEP*, WPA, WPA2-PSK, WPA2-Enterprise with 802.1X, WPA3 - Personal, WPA3 - Enterprise, WPA3 - Enhanced Open (OWE)</p> <p>EAP-TLS, EAP-TTLS, EAP-MSCHAPv2, EAP-SIM</p> <p>TKIP and AES encryption</p> <p>Enterprise Mobility Management (EMM) and Mobile Device Management (MDM) integration</p> <p>WMM Access Categories with DSCP and 802.1p support</p>	
7.0	<p><b>Subscription License (Access Point) -25 UNITS</b></p> <p>3 years Enterprise License</p>	
	<p><b>PoE Switch – 1UNIT</b></p> <p>24 10/100/1000 Ethernet PoE+ ports and 195W PoE budget, 4x 1G SFP uplinks</p> <p>AC Power Supply</p> <p>Must support optional external redundant AC power supply</p> <p>At least 28 Gbps Forwarding Bandwidth</p> <p>At least 56 Gbps Switching Bandwidth</p> <p>At least 41.67 Mpps Forwarding Rate</p> <p>Must support at least 64 STP Instances</p> <p>Must support at least 16000 Unicast Mac Addresses</p> <p>Must support at least 542 IPv4 unicast direct routes</p> <p>Must support at least 1024 IPv4 multicast routes and IGMP groups</p> <p>Must support at least 4096 VLAN IDs</p> <p>Must support at least 256 Active VLANs</p> <p>Must support 9198 bytes of Maximum transmission unit (MTU)- L3 packet</p>	

	<p>Must support 10,240 bytes of Jumbo Ethernet frame</p> <p>At least 256 MB Flash memory</p> <p>At least 512 MB DRAM</p> <p>Must support up to ARMv7 800 MHz CPU</p> <p>Must support USB-mini B, Ethernet (RJ-45) Console Ports</p> <p>Must support USB-A port for storage and Bluetooth console</p>	
	<p>Must have the following industry standards:</p> <ul style="list-style-type: none"> <li>- IEEE 802.1D Spanning Tree Protocol</li> <li>- IEEE 802.1p CoS Prioritization</li> <li>- IEEE 802.1Q VLAN - IEEE 802.1s</li> <li>- IEEE 802.1w</li> <li>- IEEE 802.1X</li> <li>- IEEE 802.1ab (LLDP)</li> <li>- IEEE 802.3ad</li> <li>- IEEE 802.3af and IEEE 802.3at</li> <li>- IEEE 802.3ah (100BASE-X single/multimode fiber only)</li> <li>- IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports</li> <li>- IEEE 802.3 10BASE-T</li> <li>- IEEE 802.3u 100BASE-TX</li> <li>- IEEE 802.3ab 1000BASE-T</li> <li>- IEEE 802.3z 1000BASE-X</li> <li>- RMON I and II standards</li> <li>- SNMP v1, v2c, and v3</li> <li>- IEEE 802.3az</li> <li>- IEEE 802.3ae 10Gigabit Ethernet</li> <li>- IEEE 802.1ax</li> </ul> <p>Must support Operating Temperature of -5°C to 45°C, up to 5,000 ft feet (1500m)</p> <p>Must have a Mean-Time-Between-Failures (MTBF) of 698,220</p> <p>Must Support Operating Relative Humidity of 5% to 90% at 40°C</p>	
8.1	<b>Warranty 3YR 8x5xNBD</b>	
9.0	<b>Installation / Configuration of Network Devices with Support (1 year)</b>	

	<ul style="list-style-type: none"> <li>● <b>20 Hours 8x5 Helpdesk Support</b></li> <li>○ <b>Phone Support</b></li> <li>○ <b>Email Support</b></li> <li>○ <b>Remote Support</b></li> </ul>	
10.0	<b>General Requirements</b>	
10.1	The bidder must be an authorized installer/distributor or reseller of the brand being offered. A current and valid certification authorizing the bidder to participate in this project shall be submitted.	
10.2	Bidder must have at least One (1) Senior Project Manager with Project Management Professional (PMP) with at least five (5) years project Management Experience. Should be currently employed and holds a PMP certificate. A proof of employment indicating the year of tenure such as but not limited to SSS or PAGIBIG or PhilHealth, and PMP certificate should be submitted as part of the technical proposal.	
10.3	<p>Bidder must have the following:</p> <p>One (1) Certified Network Professional Enterprise Engineer</p> <p>One (1) Certified Specialist – Enterprise Core Engineer,</p> <p>One (1) Certified Design Associate Engineer</p> <p>Three (3) Network Associate Engineer</p> <p>They shall submit a certificate of employment and copy of the individual certificate from the principal or manufacturer of the brand being offered.</p>	
10.4	List of at least one (1) regional satellite office in Luzon, Visayas and Mindanao with corresponding contact details	
10.5	3 Seats Professional Certification – Training with Exam of the Brand Being	

	Offered  Network Professional Or Associate  Duration: 15 days Training plus 120 Minutes Exam	
	<b><u>SUPPLY AND INSTALLATION OF NODES HORIZONTAL CAT6 CABLING</u></b>  Horizontal Cabling provides connection from the Floor Distributor (FD) to the Telecommunications Outlets (TO) in the Work Area. It consists of the horizontal transmission media, the associated connecting hardware terminating this media and TO in the Work Area.	
1.	<b>CATEGORY 6 UTP CABLE – QTY: 37 ROLLS</b>	
1.1.	The Contractor shall supply and install horizontal cables to connect each TO to the FD termination hardware for the respective floor.	
1.2.	The type of horizontal cables used for each work location shall be 4 pair Category 6 unshielded twisted pair UTP construction.	
1.3.	The Cat6 UTP cable shall be constructed of 24 AWG copper conductors with HDPE insulation.	
1.4.	The copper conductors shall be twisted into pairs, separated by a cross-divider; crosstalk cancellation spiral in the form of a cross that maintains constant distance between all the 4 pairs. This will ensure that even under torsion during installation, the crosstalk should be constant over the whole cable.	
1.5.	The copper conductors shall be covered in a flame retard PVC jacket.	
1.6.	The Cat6 UTP cable shall be Underwriter’s Laboratories (UL) listed type CM.	

1.7.	The Cat6 UTP cable must exceed TIA/EIA-568-C.2 Category 6 requirements. It must be tested to Class E to ensure performance for any application up to and including 1000Mbps.	
1.8.	The Cat6 UTP cable must meet requirement specified for current applications such as IEEE 802.3, 10/100/1000 BASE T; IEEE 802.5, 4/16/100Mbps; ATM Forum 52/155/622/1200 Mbps, 1 Gigabit Networking.	
1.9.	The horizontal cables shall be run using a star topology format from the TR on each floor to every individual TO. All cable routes must follow the routes and directions described on the drawings/SLD.	
1.10.	The length of each individual run of horizontal cable from the TR to the TO shall not exceed 90m.	
1.11.	The Contractor shall observe the bending radius and pulling strength requirements of the horizontal cable during handling and installation.	
1.12.	Each run of cable between the TR and the TO shall be continuous without any joints or splices, except where consolidation points are required. Installation practice shall comply to manufacturer best practices.	
1.13.	The cable manufacturer shall be ISO 9001 and 14001 registered.	
2.	<b>EQUIPMENT PATCH CORDS:</b>  <b>(Patch panel Side) QTY – 340 pcs.</b>  <b>(Core switch, Firewall &amp; ISP) QTY – 9 pcs.</b>  <b>(Workstation Side) QTY – 215 pcs.</b>	
2.1.	All Category 6 patch cords shall be factory terminated and supported by the system manufacturer with modular plugs featuring EASY CONTROL BY TURNING BOOT to support easy moves, adds and changes.	

2.2.	The type of cable used for station cords shall be 4 pair Category 6 unshielded twisted pair UTP of a stranded construction. Each patch cord shall be QC, 100% performance tested at the factory in a channel test to the proposed TIA/EIA-568-C.2 Category 6 standard.	
2.3.	All patch cord shall contain a molded strain relief for the cable termination.	
2.4.	(d) All patch cord shall consist of round, 32 AWG tinned copper, stranded conductors insulated with solid polyolefin, tightly twisted into individual pairs and jacketed with flame retardant PVC. The patch cord shall come in standard lengths of one meter for Switch to Patch Panel and 3 meters for TO to Desktop, IP Phone and AP.	
2.5.	All patch cord shall be UL rated 1863 and meets IEC 60603-7.	
2.6.	All patch cord shall be dual rated to meet CM and LSZH flame ratings.	
2.7.	All patch cord shall meets ANSI/TIA-968-A and FCC Part 68 Subpart F; contacts plated with 50 micro-inches of gold.	
2.8.	The length of each station patch cord in Work Area shall be 3 meters.	
2.9.	All patch cord shall have Labels on it to provide identification of performance level, length, and quality control number.	
2.10.	All patch cord shall compatible with optional RJ45 plug lock-in device to prevent unauthorized removal of cable, IP phone, other networking equipment, or critical connection.	
3.0	<b>COPPER PATCH PANEL 24 Ports – 16 pcs.</b>	
3.1.	<ul style="list-style-type: none"> <li>The patch panel shall be modular with snap-in modular jack, and allow front access.</li> </ul> <p>Modular patch panels shall consist of a metal panel with molded snap-in</p>	

	faceplates which can be front releasable.	
3.2.	The modular patch panel shall support the appropriate Category 6 cabling and shall facilitate cross-connection and inter-connection using RJ45 8 position 8 conductor modular plug patch cords.	
3.3.	Patch panels shall accept all Mini-Com modules for UTP, STP, fiber, or A/V applications and shall mount to standard 19" racks	
3.4.	The modular patch panel shall be able to accommodate 24 AWG cable conductors.	
3.5.	The modular patch panel shall be Underwriter's Laboratories (UL□) listed	
3.6.	The modular patch panel shall be of 1RU 24-port for 19" rack mounting.	
3.7.	High density 1RU 48-port or 2RU 72-port configuration might be used if rack space is limited.	
3.8.	Separate modular patch panel shall be used for the termination of voice and data.	
4.0	<b>HORIZONTAL CABLE MANAGER 1 RACK UNIT – 16 units</b>	
4.1.	Horizontal cable manager must be used with patch panel.	
4.2.	The horizontal cable manager shall be capable of managing cables on the front, of any 19" Data rack.	
4.3.	The horizontal cable manager shall consist of a 1-piece construction that is molded out of plastic.	
4.4.	The horizontal cable manager shall have pass through holes that incorporate integral bend radius control as well as finger with rounded edges.	
4.5.	The horizontal cable manager shall have rigid end fingers that incorporate integral bend radius control.	

4.6.	The horizontal cable manager shall be available in 1RU, front only.	
5.	<b>Main Distribution Frame – 1 unit</b>	
5.1.	6ft 600mm x 1200mm	
5.2.	Power Distribution Unit - 16 outlets; 3 prong 2 gang; 20 AMP Fuse Capacity	
6.	<b><u>FIBER BACKBONE CABLING</u></b>	
	The Building Backbone Subsystem shall include vertical runs of in-building cable between the Main Distribution and the Intermediate Distribution of the building.	
7.	<b>6 CORE FIBER OPTIC – (410-LM.)</b>	
7.1.	Opti-Core Fiber Optic Distribution Cable shall be used.	
7.2.	The Contractor shall supply and install multi-core fiber optic cables as the vertical/horizontal backbone cables as noted in this specification and in the drawings/SLD.	
7.3.	<ul style="list-style-type: none"> <li>The Contractor shall observe the bending radius and pulling strength requirements of all backbone cables during handling and installation.</li> </ul>	
7.4.	Each optical fiber shall be buffered with color-coded PVC for identification of multi-core fiber optics cable. The connector type shall be SC connector.	
7.5.	The fiber optic cable shall meet the NEC requirements for OFNR or OFNP and comply with Bell core, FDDI, TIA/EIA-568-C.3, IEC and ICEA standards.	
7.6.	All Multimode optical fiber cables shall be graded index with core/cladding construction of 50/125 $\mu$ m; the fiber shall be compliant to the performance specifications for OM3 Multimode fiber detailed in ISO11801.	
7.7.	The fiber optic cable shall be protected by means of either a cable tray or a dedicated fiber routing system at all times. Each end of the fiber optic cable	



	shall contain a slack storage box with approximately three (3) meters of cable slack.	
7.8.	<ul style="list-style-type: none"> <li>• OM3 Maximum Cable Attenuation Performance <ul style="list-style-type: none"> <li>○ Transmission Wavelength: 850nm – 1300nm</li> </ul> </li> </ul> <p>Maximum Attenuation: 3.5 – 1.5</p>	
8	<b>Pigtail SC type OM3 (SC CONNECTOR) – 96 pcs.</b>	
8.1.	TIA/EIA-604-3[SC]	
8.2.	<ul style="list-style-type: none"> <li>• Ferrule type: Zirconia ceramic ferrule with a pre-polished fiber stub.</li> </ul>	
8.3	Insertion Loss: 0.3dB average (multimode).	
8.4.	Return Loss: >50dB (multimode)	
8.5.	No special fiber termination tools required.	
8.6.	Translucent inner housing assembly facilitates inspection of the fiber termination quality; results in rapid installations, improved termination yields, and lower installed costs.	
8.7.	Mechanical cable retention consistently provides higher than industry standard cable retention; requires no adhesive, speeding installation.	
8.8.	Allow up to ten (10) re-terminations.	
9.	<b>FIBER OPTIC PATCH CORD DUPLEX OM3 (LC – SC) QTY – 24 pcs.</b> <b>(Server side) QTY – 4 pcs.</b>	
9.1.	Pass all TIA/EIA-568-C.3 performance requirements	
9.2.	Insertion loss per connection: 0.10dB	
9.3.	Return loss: 20dB min. (multimode); 26dB min. (10Gig multimode)	
9.4.	<ul style="list-style-type: none"> <li>• 100% factory terminated and tested</li> </ul>	

	for insertion loss	
9.5.	Meets UL1666 (OFNR) flame ratings	
9.6.	Lifetime traceability of test data to a Q.C. number on each patch cord	
9.7.	Duplex Patch Cords include Duplex Clips to maintain polarity	
9.8.	The Contractor shall supply and install fiber optic patch cords for cross-connection and inter-connection of fiber optic connectors in fiber termination trays.	
9.9.	The type of fiber optic patch cords to be used shall be selected to suit the type of fiber optic connector that is installed in the corresponding fiber termination tray.	
10.	<b>3FT IDF Cabinet – 6 unit</b>	
10.1.	600mm x 600mm	
10.2.	Powder Coated	
10.3.	With power distribution unit 6 outlets; 3 prong 2 gang; 20AMP Fuse Capacity	
11.	<b><u>SCOPE OF WORK</u></b>	
11.1.	DEMOBILIZATION / MOBILIZATION including PPE	
11.2.	Supply and installation of Rousing ins Materials for Ground Floor, 2 <sup>nd</sup> Floor, 3 <sup>rd</sup> Floor & 4 <sup>th</sup> Floor of LTFRB Office.	
11.3.	Supply, installation and Cable pulling of Cat6 UTP Cable from Ground floor, 2 <sup>nd</sup> floor, 3 <sup>rd</sup> floor & 4 <sup>th</sup> floor IDFs to their respective workstation.	
11.4.	Supply and Installation of 6 FT-Data Rack MDF for the Server room and 3Ft IDF cabinet for the Ground floor, 2 <sup>nd</sup> floor, 3 <sup>rd</sup> floor & 4 <sup>th</sup> floor.	
11.5.	Fluke Testing, Tagging and harnessing of Cables	
11.6.	Copper Termination	

11.7.	Fiber Optic Termination	
11.8.	Submission of As-built plan and Documentation	
12.	<b>Horizontal cabling must be terminated to CAT6 Patch panel</b>	
12.1.	Patch cord 2 meter must be use for the equipment side while the patch cord 3 meters must be use for the customer/workstation side.	
12.2.	Cable must not exceed 100-meter distance from the IDF/MDF per floor	
12.3.	All cable must have fluke test result	
13.	<b>General Requirements:</b>	
13.1.	Bidder must have actual or similar deployment with the offered solution.	
13.2.	Bidder must have at least Three (3) Ce Data Center Professional (CDCP). They submit a certificate of employment and  copy of the individual certificate from principal  or manufacturer of the brand being offered	
13.3.	The bidder must provide a single line diagram and proposed plans on CAD format	
13.4.	Project commissioning (delivery, installation, configuration, documentation and testing)	
13.5.	The bidder must be an authorized installer/distributor or reseller of the brand being offered. A current and valid certification authorizing the bidder to participate in this project shall be submitted.	
13.6.	The structured cabling system warranty for structured cabling should be 20years	
13.7.	Workmanship warranty should be 1 year.	

13.8.	Project must be completed within 90 upon receipt of Notice to Proceed	
	<p><b>Other Deliverables</b></p> <p><b>Training Requirement</b></p> <p>At a minimum, the Knowledge Transfer session must include the following:</p> <ul style="list-style-type: none"> <li>• Classroom Session – Presentation of designs, equipment specifications, equipment functionality, back-up systems, troubleshooting, operations, and maintenance.</li> <li>• Installation Walk-Through – Physical inspection of all installed equipment and devices, operation demonstration i.e. power up/down, settings, basic configuration, etc.</li> <li>• There should be training session on handling the setup and configuration of equipment and the network itself.</li> <li>• The user’s and operation manual should be given to the participants before or during the conduct of the training.</li> <li>• A minimum of 10 pax are the attendees per training.</li> <li>• All expenses are shouldered by the bidder.</li> </ul>	
	<p><b>Documents to be provided by the winning bidder</b></p> <ul style="list-style-type: none"> <li>• Solution Schematic Diagram</li> <li>• Solution Network Diagram</li> <li>• Solution written User’s Manual and video tutorial.</li> <li>• Solution Administrator Manual and video tutorials.</li> <li>• Solution Maintenance and Back-Up and Recovery Manual and</li> </ul>	

	<p>video tutorials.</p> <ul style="list-style-type: none"> <li>• Solution Training Manual</li> <li>• Solution Configuration Codes</li> <li>• All documents should be compiled and hard or soft bonded. The manuals should also have a digital copy that is stored on DVD.</li> <li>• Project management plan on the solution development and hardware installation shall be presented to LTFRB during the kick off meeting.</li> </ul>	
	<p><b>Scope of Work for Installation/ Deployment</b></p> <p><b>Supply, Delivery, Installation, Configuration and Maintenance</b></p> <ul style="list-style-type: none"> <li>• Before installation, configuration and testing, the winning bidder shall secure approval of the items procured from the LTFRB Key Personnel.</li> <li>• Maintenance of network infrastructure shall be one (1) year upon completion of the project, free of charge.</li> <li>• Network component support shall be (3) years upon completion of the project, free of charge.</li> </ul>	
	<p><b>Implementation or Work Schedule</b></p> <ul style="list-style-type: none"> <li>• The supplier shall submit a comprehensive project implementation plan showing the following:</li> <li>• Detailed work plan <b>10 days</b> upon issuance of NTP;</li> <li>• Milestones and critical tasks in implementing the project within the allotted <b>ninety (90) calendar days</b> from the date of receipt of Notice to Proceed (NTP); and</li> <li>• Specific dates for work and quality inspection by the LTFRB team and concerned agencies.</li> <li>• If discrepancies/ambiguities are found or some deviation is necessary in the actual</li> </ul>	

	<p>implementation progress, the winning bidder shall report the same to LTFRB and shall take all corrective actions/measures at proponent's own expense in accordance with the instruction given by LTFRB.</p> <ul style="list-style-type: none"> <li>• User testing on the hardware, networking equipment and materials shall be done once all equipment are installed or as the need arises.</li> </ul>	
	<p><b>Other Requirements</b></p> <p><b>Supplier's Qualification</b></p> <ul style="list-style-type: none"> <li>• The supplier must be an authorized dealer / distributor or reseller of the brand being offered. A current and valid manufacturer's certification authorizing the bidder to participate in this project shall be submitted and must be included in its technical component of its bid directly in favor of the bidder participating in the bidding. The Bids and Awards Committee (BAC) will not accept authorization of distributorship agreement coming from an authorized distributor, dealer or reseller in the Philippines.</li> <li>• The supplier should have completed within the last five (5) years from the date of submission and receipt of bids at least one (1) single contract of similar nature amounting to at least fifty percent (50%) of the ABC.</li> <li>• For this project, "similar in nature" shall mean "Full package development of solutions which include the Installation, design, development, configuration, testing and implementation of customized software solution and needed hardware".</li> </ul>	

	<p><b>Duration of the Contract</b></p> <ul style="list-style-type: none"> <li>The entire project shall be completed within ninety (90) days upon issuance of Notice To Proceed with the following terms: a.) <b>one (1) year product license; and b.) three (3) year maintenance and support.</b> The product license and maintenance will commence after the final acceptance of the project.</li> </ul>	
	<p><b>Warranty</b></p> <ul style="list-style-type: none"> <li>The supplier warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials, except when the technical specifications required by LTFRB provide otherwise.</li> <li>The supplier further warrants that all Goods supplied under this contract shall have no defect arising from design, materials, or workmanship; From any act of omission of the supplier that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.</li> <li>The warranty shall cover full replacement of defective items, free of charge, including labor, spare parts and materials.</li> <li>Liquidated damages shall follow the existing guidelines set forth under the RA 9184 or as issued by GPPB – TSO.</li> </ul>	

***Section VIII. Checklist of Technical and  
Financial Documents***



# Checklist of Technical and Financial Documents

## I. TECHNICAL COMPONENT ENVELOPE

### *Class "A" Documents*

#### Legal Documents

- (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);  
**or**
- (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document,  
**and**
- (c) Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;  
**and**
- (d) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

#### Technical Documents

- (f) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- (g) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided for in Sections 23.4.1.3 and 23.4.2.4 of the 2016 revised IRR of RA No. 9184, within the relevant period as provided in the Bidding Documents; **and**
- (h) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;  
**or**  
Original copy of Notarized Bid Securing Declaration; **and**
- (i) Conformity with the Technical Specifications, which may include production/delivery schedule, manpower requirements, and/or after-sales/parts, if applicable; **and**
- (j) Original duly signed Omnibus Sworn Statement (OSS);  
**and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

- (k) The Supplier's audited financial statements, showing, among others, the Supplier's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; **and**
- (l) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC);  
**or**  
A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.

**Class "B" Documents**

- (m) If applicable, a duly signed joint venture agreement (JVA) in case the joint venture is already in existence;  
**or**  
duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

Other documentary requirements under RA No. 9184 (as applicable)

- (n) *[For foreign bidders claiming by reason of their country's extension of reciprocal rights to Filipinos]* Certification from the relevant government office of their country stating that Filipinos are allowed to participate in government procurement activities for the same item or product.
- (o) Certification from the DTI if the Bidder claims preference as a Domestic Bidder or Domestic Entity.

**25 FINANCIAL COMPONENT ENVELOPE**

- (a) Original of duly signed and accomplished Financial Bid Form; **and**
- (b) Original of duly signed and accomplished Price Schedule(s).

