PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

Supply, Delivery, Installation, Testing, Training, and Maintenance of Department of Education Central Office Network Rehabilitation Project 2022

Government of the Republic of the Philippines



Information and Communications Technology Service – Technology Infrastructure Division (ICTS-TID)

AUGUST 2023

2023c-ICTS3(012)-BII-CB-025

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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.

BDS - Bid Data Sheet.

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) preinvestment 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])

IB – Invitation to Bid.

ITB - Instruction to Bidders.

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



Republic of the Philippines Department of Education prement Management Servi

Procurement Management Service

au and au

Bids and Awards Committee II

PROJECT NO. 2023c-ICTS3(012)-BII-CB-025

INVITATION TO BID

FOR THE

Supply, Delivery, Installation, Testing, Training and Maintenance of Department of Education Central Office Network Rehabilitation Project 2022

1. The **Department of Education (DepEd)**, through the Government of the Philippines (GOP) under **DCP 2022 Capital Outlay (Continuing Fund)** intends to apply the sum of **Philippine Pesos One Hundred Eighty-Nine Million, Seven Hundred Twenty-Two Thousand, Five Hundred Seventy-Five and 01/100 (Php189,722,575.01) only, being the total Approved Budget for the Contract (ABC) to payments under the contract for the Supply, Delivery, Installation, Testing, Training and Maintenance of Department of Education Central Office Network Rehabilitation Project 2022** detailed as follows:

Lot No.	Description	Items	Approved Budget for the Contract (ABC) In Php
1	Supply, Delivery, Installation, Testing, Training and Maintenance of Department of Education Central Office Network Rehabilitation Project 2022	Structured Cabling (Fiber and Copper) Installation, Configuration and User Training for Network Active Components and Network and Guest Management Installation, Configuration and User Training for Cyber Security Monitoring System Data Center Upgrade Installation, Configuration and User Training for Unified IP Telephone System Installation, Configuration and User Training for UPS and Backup Power System Installation, Configuration and User Training for UPS and Backup Power System Installation, Configuration and User Training for IP Based Unified Paging System	189,722,575.01

Bids received in excess of the ABC for the project shall be automatically rejected at bid opening.

2. The **DepEd**, through the **Bids and Awards Committee (BAC) II**, now invites bids for the goods and services contemplated in this project. Expected completion of delivery of the goods and services is specified in **Section VI. Schedule of Requirements** and **Section VII. Technical Specifications** of this bidding documents.

Prospective bidder should have completed, within a period of **five (5) years** immediately preceding the deadline for submission of bids, a Single Largest Completed Contract (SLCC) similar to the contract to be bid and the value of which, adjusted, if necessary, by the Bidder to current prices using the Philippine Statistics Authority's (PSA's) Consumer Price Index (CPI), must be **at least fifty percent (50%)** of the ABC of the lot bid for.

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 **DepEd Procurement Management Service BAC Secretariat Division (ProcMS-BACSD)** at **Telephone Nos. 8636-6542 or 8633-9343** and inspect the Bidding Documents at the address given below from **Monday to Friday from 8:00am to 5:00pm.**
- 5. For those who are interested to purchase the Bidding Documents, two (2) options are made available, to wit:
 - a. A complete set of Bidding Documents may be acquired by interested Bidders from the **DepEd ProcMS-BACSD**, **Room M-511**, **5th Floor**, **Mabini Building**, **DepEd Central Office Complex**, **Meralco Avenue**, **Pasig City**, upon accomplishing a bidder's information sheet and payment of a non-refundable fee for the Bidding Documents to the **DepEd Cashier**.

Payment in checks should be made payable to **DECS OSEC Trust.**

b. Interested Bidders may signify their intent to purchase the Bidding Documents through email at depedcentral.bacsecretariat@deped.gov.ph
by accomplishing a bidder's information sheet (*Annex "A"). Upon receipt of the bidder's information sheet, the BAC Secretariat Division will send through emailthe details of the DECS OSEC Trust Fund Account for payment. Upon payment, bidders may send through email the proof of payment before the deadline for submission of bids. Upon receipt of proof of payment, the BAC Secretariat will send the electronic copy of the Bidding Documents.

Amount of Bidding Documents shall be *Philippine Pesos Fifty Thousand* and 00/100 (PhP50,000.00).

- 6. The **DepEd** will hold a Pre-Bid Conference for this Project on **August 9, 2023, 09:00 A.M.** at **Bulwagan ng Karunungan, Ground Floor, Rizal Building, DepEd Complex, Meralco Ave., Pasig City,** which shall be open to prospective bidders.
- 7. Bids must be duly received by the BAC Secretariat on or before **08:30 A.M. of**August **22, 2023** at Bulwagan ng Karunungan, Ground Floor, Rizal Building,

DepEd Complex, Meralco Ave., Pasig City.

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 Instructions to Bidders (ITB) Clause 14.
- 9. Bid opening shall be on August 22, 2023, 09:00 A.M. at Bulwagan ng Karunungan, Ground Floor, Rizal Building, DepEd Complex, Meralco Ave., Pasig City. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

Only **one (1) representative** per bidder will be allowed to enter inside the venue.

For the purpose of constituting a quorum, both the physical and virtual presence of the BAC members shall be considered pursuant to GPPB Resolution No. 09-2020.

- 10. The **DepEd** 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:

JELLY ANNE THERESE A. DIOSO

Technical Assistant II
Procurement Management Service - BAC Secretariat Division
Rm. M-511, 5th Floor, Mabini Bldg.
DepEd Complex, Meralco Avenue, Pasig City
Telephone Nos. 8636-6542 or 8633-9343

Email address: depedcentral.bacsecretariat@deped.gov.ph

12. You may visit the following websites:

For downloading of Bidding Documents:

https://notices.philgeps.gov.ph/ https://www.deped.gov.ph/

Date of Issuance of Bidding Documents: August 2, 2023

(sgd)
FRANCIS CESAR B. BRINGAS
Assistant Secretary and Vice-Chairperson

Section 1	II.	Instructions	to	Bidders

1. Scope of Bid

The Procuring Entity, **Department of Education (DepEd)**, through its Information and Communications Technology Service – Technology Infrastructure Division (ICTS-TID) wishes to receive bids for the Supply, Delivery, Installation, Testing, Training and Maintenance of Department of Education Central Office Network Rehabilitation Project 2022, with project identification number 2023c-ICTS3(012)-BII-CB-025.

The Procurement Project (referred to herein as "Project") is composed of **one** (1) lot, as described in Section I (Invitation to Bid), Section VI (Schedule of Requirements), and Section VII (Technical Specifications).

2. Funding Information

- 2.1. The GOP, through the source of funding **General Appropriations Act** (GAA) 2023 in the amount of *Philippine Pesos One Hundred Eighty-Nine Million*, Seven Hundred Twenty-Two Thousand, Five Hundred Seventy-Five and 01/100 (Php189,722,575.01) only.
- 2.2. The source of funding is the **GAA 2023** under **DCP 2022 Capital Outlay (Continuing Fund).** Pursuant to **NBC No. 590**, the funds for this project shall be valid for release, obligation, and disbursement until **December 31, 2023**, subject to any subsequent issuance to this effect.

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 exceeding those allowed under the rules may participate pursuant to the following:
 - i. When a Treaty or International or Executive Agreement as provided in Section 4 of the RA No. 9184 and its 2016 revised IRR allow foreign bidders to participate;
 - ii. Citizens, corporations, or associations of a country, included in the list issued by the GPPB, the laws or regulations of which grant reciprocal rights or privileges to citizens, corporations, or associations of the Philippines;
 - iii. When the Goods sought to be procured are not available from local suppliers; or
 - iv. When there is a need to prevent situations that defeat competition or restrain trade.
- 5.3. Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder should have a Single Largest Completed Contract (SLCC) at least one (1) contract similar to the project to be bid and the value of which, adjusted, if necessary, by the Bidder to current prices using the Philippine Statistics Authority's (PSA's) consumer price index (CPI), must be at least fifty percent (50%) of the ABC of the lot bid for.
- 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

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 either at its physical address and/or through videoconferencing/webcasting 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 a period of **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, as listed in e.
- b. For Goods offered from abroad:
 - i. Unless otherwise stated in the Bid Data Sheet (BDS), the price of the Goodsshall be quoted delivered duty paid (DDP) with the place ofdestination 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 Philippine Pesos.

14. Bid Security

- 14.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall not be 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 for **120 calendar days** reckoned from the date of the opening of bids. 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 of the Bid and/or electronic copies. Any discrepancy between the hard/paper copies and the copies contained and as presented in the USB Flash Drive shall be a ground for disqualification.

16. Deadline for Submission of Bids

16.1. The Bidders shall submit on the specified date and time at its physical address 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 specific time, date, and location mentioned in paragraph 9 of the **IB**. The Bidders' representatives who are present must 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, and evaluation will be undertaken on a per lot basis, as the case may be. In this case, the Bid Security as required by **ITB** Clause 15 shall be submitted for each lot separately.
- 19.3. The descriptions of the lots shall be indicated in **Section VII (Technical Specifications)**, although the ABC of the lot is 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 ABC for the lot/s participated in by the prospective Bidder.
- 19.4. The Project shall be awarded as separate contract per lot.
- 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 ABC for the lot/s 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 ABC for the lot/s 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	For th	For this purpose, contracts similar to the projects shall be:					
			very, Installatio re that includes onents	•			
		_	hin five (5) years on and receipt of l		rior to the dea	adline for	
7.1	Subco	ontract					
	Subco	ontracting sha	all NOT be allowed	d.			
9	_		tions must be in the deadline set	_		, ,	
	The Pr	ocuring Entit	y's address is:				
	Bids	s and Awards	sar B. Bringas Committee (BAC)	•			
	,		Management Ser Floor, Mabini Bldg		tariat Division	l	
	Dep	Ed Complex,	Meralco Avenue,	Pasig City			
			636-6542 or 8633 epedcentral.bacs		ed.gov.ph		
	Consistent with Section 22.5.3 of the revised IRR of RA 9184, posting on the PhilGEPS and the procuring entity's website of any supplemental/ bid bulletin shall be considered sufficient notice to all bidders or parties concerned.						
11	Docu	ments compr	ising the Bid: Fi	nancial Compo	nent		
	The second bid envelope shall contain the financial documents for the Bid, and the Bid Form and Price Schedule shall be per lot as prescribed in the forms provided herein.						
12	The price of the Goods shall be quoted DDP (DepEd Central Office and designated Schools Division Offices) or the applicable International Commercial Terms (INCOTERMS) for this Project.						
	Bid prices should be written in two (2) decimal places only . Bid prices						
	that are written in more than two (2) decimal places shall be rounded off.						
		ts of bid evalue of the	luation that will bid(s).	exceed the Al	BC shall be a	ground	
14.1	The bi	id security sh	all be in the form ns and amounts		_	-	
				Bid Security Form & her than Bid Securin			
	Lot No.	Description	Cost Breakdown of	2% of ABC	5% of ABC	Bid	

			the Approved Budget for the Contract (ABC) Php189,722,575.01	(if bid security is in cash, cashier's/ manager's check, bank draft/ guarantee or irrevocable letter of credit)	(if bid security is in Surety Bond)	Securing Declaration (no percentage required)	
	1	Supply, Delivery, Installation, Testing, Training and Maintenance of Department of Education Central Office Network Rehabilitation Project 2022	189,722,575.01	3,794,451.50	9,486,128.75	-	
14.2	to the	DepEd Cash I der the custoo	r than a Bid Secu Division for custo dy of the BAC Sec not contain any o	dy. The Bid Secu cretariat.	iring Declarat	tion shall	
	such	intercalation,	ion. Otherwise, I superimposition	n, or alteration			
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	PROP	OSAL." Copie	s thereof shall be	similarly sealed	d in envelopes	s marked	
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			OSAL." In addition original eligibility	•		_	
			arked as "USB				
			inal and the copi			-	
		•	gle envelope mark				
	the other hand, the original of their financial documents shall be enclosed						
	in another sealed envelope marked as "ORIGINAL - FINANCIAL PROPOSAL" Copies thereof shall be similarly sealed in envelopes marked						
	PROPOSAL. " Copies thereof shall be similarly sealed in envelopes marked as "COPY NO. 1 - FINANCIAL PROPOSAL" and "COPY NO. 2 -						
			SAL." The USB I				
		•	al documents sha				
			said envelopes co	•	•	-	
	and the flash drive shall then be enclosed in one single envelope marked as "FINANCIAL PROPOSAL." Further, the envelopes marked as "TECHNICAL PROPOSAL" and "FINANCIAL PROPOSAL" shall be						
	enclosed and/or sealed in an outer envelope marked as "MOTHER ENVELOPE." (See Illustration 1).						
	conta		between the h presented in the n.				
	SEC, I	DTI, or the CI	he Class "A" Elig DA registration ce n the date and the	ertificate and the	e Mayor's Per	mit, may	

the bidder must be able to present such original copies during postqualification on demand by the BAC or its authorized representative(s) for validation.

To facilitate the receipt and classification of bid envelopes, mother envelope shall be RED, the inner envelope containing Technical Proposal shall be Blue, the inner envelope containing Financial Proposal shall be Green, and the Post-Qualification Documents shall be Brown.

Post-qualification documents may be submitted during the bidding but this does not disqualify bidders who will not submit post-qualification documents during bid submission.

Note: Each Bidder shall submit three (3) paper copies (i.e, one (1) original and two (2) copies) of its bid and two (2) USB Flash Drive electronics copies (one Technical Component and one Financial Component). The E-copy of the Price Schedule must be in the form of Excel and PDF.

Unsealed or unmarked bid envelopes, shall be rejected. However, bid envelopes that are not properly sealed and marked as required in the Bidding Documents, shall be accepted, provided that the bidder or its duly authorized representative shall acknowledge such condition of the bid as submitted. The BAC shall assume no responsibility for the misplacement of the contents of the improperly sealed or marked bid, or for its premature opening.

Online submission of bids is not allowed.

19.3 The Project shall be awarded by lot, details as follows:

Lot No.	Description	Items	Approved Budget for the Contract (ABC) In Php		
		Structured Cabling (Fiber and			
		Copper)			
		Installation, Configuration and			
		User Training for Network			
Installation, Te Training at Maintenanc Department Education Ce Office Network		Active Components and			
	C1- D-1:	Network and Guest			
	Supply, Delivery, Installation, Testing, Training and Maintenance of Department of Education Central Office Network Rehabilitation Project	Management	4		
		Installation, Configuration and			
		9	9	User Training for Cyber Security Monitoring System	
		Data Center Upgrade	189,722,575.01		
		Installation, Configuration and	1		
		User Training for Unified IP			
	2022	Telephone System			
Rehabilitat		Installation, Configuration and]		
		User Training for UPS and			
		Backup Power System			
		Installation, Configuration and			
		User Training for IP Based			
		Unified Paging System			

The computation of a prospective bidder's NFCC must be at least equal to the ABC to be bid, calculated as follows:

NFCC – [(Current assets minus current liabilities) (15)] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be

started

The values of the domestic bidder's current assets and current liabilities shall be based on the latest Audited Financial Statements submitted to the BIR.

For purposes of computing the foreign bidders' NFCC, the value of the current assets and current liabilities shall be based on their Audited Financial Statements prepared in accordance with international financial reporting standards. (23.5.1.4a)

If the prospective bidder submits a committed Line of Credit, it must be at least equal to ten percent (10%) of the ABC of the lots bid for: Provided, that if the same is issued by a foreign Universal or Commercial Bank, it shall be confirmed or authenticated by a local Universal or Commercial Bank.

In any case, the NFCC computation or committed line of credit, must be sufficient for all the lots or contracts bid. The NFCC computation shall be in accordance with the prescribed form.

In case of a joint venture, the NFCC shall be computed based on the Audited Financial Statements of the **LOCAL LEAD PARTNER**, <u>unless it is shown by clear proof that the other partners to the joint venture have infused capital investment to support the operation of the local lead partner to ensure compliance with the obligations under the contracts in this project, in which case the NFCC of the foreign joint venture or the minority partner of the joint venture shall be computed.</u>

For this purpose, the local lead partner shall be that person/organization/company identified in the Joint Venture Agreement or in the Letters of Intents (for potential JV partners) shown to have the controlling stakes in the JV.

For easier reference, participating JVs or prospective JV partners must indicate in their JVAs or Letters of Intent the local lead partner appointed by them.

- 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 LCB, the Bidder shall submit the following requirements:
 - a. Latest income and business tax returns: Printed copies of the Electronically filed Income Tax and Business Tax Returns with copies of their respective Payment Confirmation Forms for the immediately preceding calendar/tax year from the authorized agent bank;

Only tax returns filed and taxes paid through the BIR Electronic Filing and Payment System (EFPS) shall be accepted.

NOTE: The latest income and business tax returns are those within the last six months preceding the date of bid submission.

b. Other appropriate licenses and permits required by law and stated in the **BDS**.

During post-qualification, upon demand by the BAC or its representative(s), a bidder with the lowest calculated bid shall be able to present/submit the following:

- a. Documents to verify or support its Statement of On-going and/ or Statement identifying its Single Largest Completed Contract which may consist of the following: appropriate and clear duly signed contracts, purchase orders, agreements, notices of award, job orders, or notices to proceed, with the corresponding duly signed certificate of completion, delivery receipts, inspection and acceptance reports, certificates of final acceptance or official receipts.
- b. For validation purposes, original copy Class "A" Eligibility documents.
- c. Certified true copy documents as issued by the certifying/authorized agencies.

During post-qualification, compliance of the goods offered with the requirements specified in this bidding document shall be determined, including the following:

- i. As per Section 34.3, b.ii, item a, of the IRR of R.A. 9184, verification of availability and commitment, and/or inspection and testing for the required capacities and operating conditions, of equipment units to be owned/leased/under purchase by the bidder for use in the contract under bidding, as well as checking the performance of the bidder in its ongoing government and private contracts, if any of these ongoing contracts shows:
 - a. Negative slippage of at least fifteen percent (15%) in any one project or a negative slippage of at least ten percent (10%) in each of two (2) or more contracts;
- ii. As per Section 34.3, b.iii, items a to c, of the IRR of R.A. 9184, verification and/or inspection and testing of the goods/product, aftersales and/or maintenance capabilities, in applicable cases, as well as checking the following:
 - a. Delay in the partial delivery of goods amounting to ten percent (10%) of the contract price in its ongoing government and private contracts;
 - b. If any of these contracts shows the bidder's failure to deliver or perform any or all of the goods or services within the period(s) specified in the contract or within any extension thereof granted by the Procuring Entity pursuant to a request made by the supplier prior to the delay, and such failure amounts to at least ten percent (10%) of the contract price; or

c. Unsatisfactory performance of the supplier's obligations as per contract terms and conditions at the time of inspection.

If the BAC verifies any of these deficiencies to be due to the bidder's fault or negligence, the BAC shall disqualify the bidder from the award, for the procurement of goods.

In case of foreign bidders, a Certificate of Authentication from the Department of Foreign Affairs shall be required for each document submitted, i.e. the Class "A" documents or its equivalent that are written in foreign language, translated to English, and duly authenticated by the appropriate Philippine foreign service establishment/post or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines.

To facilitate post-qualification, the bidder at its option may submit in advance, i.e., on the deadline for submission and receipt of bids, above requirements and other documents required in *Section II. ITB 20.1*

The envelope shall be placed in a brown envelope and marked:

ITB 20.1 Documents

Name of Project:	
Bid Opening Date:	
Name of Bidder:	

Failure to submit above requirements within the required timeframe or a finding against the veracity of any such documents or other documents submitted for the project shall be a ground for disqualification of the bidder for the award and the enforcement of the bid securing declaration.

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 are 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 2016 revised 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 specifications at no extra cost to the Procuring Entity in accordance with the Generic Procurement Manual. In addition to tests in the **SCC**, **Section VII (Technical Specifications)** shall specify what inspections and/or tests the Procuring Entity requires, and where they are to be conducted. The Procuring Entity shall notify the Supplier in writing, in

a timely manner, of the identity of any representatives retained for these purposes.

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

	Special Conditions of Contract
GCC Clause	
1	Delivery and Documents –
	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:
	The delivery terms applicable under this Contract shall be DDP (Duties Delivered Paid) in accordance with INCOTERMS. Risk and title to the goods shall pass from the Supplier/Service Provider to DepEd upon receipt and final acceptance of the goods at the designated delivery site (DepEd Central Office) .
	The services to be rendered and goods to be delivered by the Supplier/Service Provider must be in accordance with the Technical Specifications, Terms of Reference, and other requirements indicated in the bidding documents, and/or as may be reasonably deemed necessary to effect the full and timely completion of the required services and delivery of the goods.
	For purposes of this Clause, the representative of the Department of Education (DepEd) at the delivery site shall be the ICTS-TID through DepEd Central Office – ENGR. MARVIN M. DELA CRUZ, for the End-User Unit, and the MR. ALBERT ALANO, for the Inspectorate Team.
	Upon delivery of the goods to the delivery site, the Supplier/Service Provider shall notify DepEd and present the following documents:
	 Original and four copies of the Supplier's/Service Provider's invoice showing goods' description, quantity, unit price, and total amount; Original and four copies of the Supplier's/Service Provider's Warranty Certificate, where applicable; Original (white copy) and scanned copy stored in CD/DVD/Flash Drive of the pre-numbered Inspection and Acceptance Report (IAR) and Delivery Receipt (DR) detailing number and description of goods received and duly signed and dated by the ARP.
	In case the Supplier/Service Provider encounters conditions impeding timely completion of the required services and delivery of the goods, it must promptly notify DepEd in writing within five (5) calendar days from notice of such conditions, and any request for work suspension and/or contract period extension shall be promptly done in writing as soon as circumstances for such requests have become apparent. The Supplier/Service Provider must provide sufficient proof to support any request for work suspension and/or contract period extension.

Incidental Services -

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. The Supplier is required to provide the following services, including additional services, if any:

- 1. Performance or supervision of on-site assembly and/or start-up of the supplied goods;
- 2. Furnishing of tools required for assembly and/or maintenance of the supplied goods;
- 3. Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
- 4. 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 obligation; and
- 5. Training of the DepEd personnel at the Supplier's/Service Provider's plant and/or on-site in assembly, start-up, operation, maintenance and/or repair of the supplied goods.

Packaging -

The Supplier/Service Provider shall provide such packaging 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.

Insurance -

The goods under this Contract shall be fully insured by the Supplier/Service Provider in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery. The goods remain at the risk and title of the Supplier/Service Provider until their final acceptance by DepEd.

Transportation -

Transport of the goods shall be arranged by the Supplier/Service Provider, and related costs shall be included in the contract price.

DepEd accepts no liability for the damage of goods during transit. Risk and title to the goods will not be deemed to have passed to DepEd until its receipt and final acceptance at the final destination, through its authorized receiving personnel.

Intellectual Property Rights -

The Supplier/Service Provider shall indemnify DepEd against all third-party

claims of infringement of patent, trademark, or industrial design rights arising from the use of the goods or any part thereof.

2.2 Schedule of Payment

The method and conditions of payment to be made to the Supplier/Service Provider through the Government disbursement procedure within sixty (60) days after the date of acceptance of services and goods at the project site and upon submission of documents under this contract shall be as follows:

Advance Payment

An advance payment not to exceed **15%** of the contract amount shall be allowed and paid within 60 calendar days from the signing of the contract. An irrevocable letter of credit or bank guarantee of an equivalent amount must be submitted and shall remain valid until the goods are delivered, and accompanied by a claim for advance payment.

The Supplier/Service Provider may submit a request for payment based on progress reports which shall be attached to the progress billing and include the following:

- 1. Actual value of services rendered and quantity of goods delivered based on the schedule of delivery and other relevant terms and conditions of the contract;
- 2. Statement of Account:
- 3. Duly signed Delivery Receipts;
- 4. Duly signed Inspection and Acceptance Reports, including certification by Supplier/Service Provider, as approved by the duly authorized DepEd representative, that the required services have been rendered, and the goods have been delivered and/or properly installed and commissioned in accordance with the contract;
- 5. Approved commissioning and testing report, as applicable;
- 6. Approved engineering design, as applicable; and
- 7. Certificate of Acceptance for the conduct of training, including the training manual and signed attendance sheet, as applicable.

Other documents in support of a request for payment may be required by DepEd pursuant to existing disbursement, accounting, and auditing rules and procedures.

Progress Payment

Progress payment shall be paid to the Supplier/Service Provider in accordance with the following schedule:

Milestone	Description	Works to be accomplished	Percentage of the Contract Price
1	Full operation of the following:		30% (within 60 calendar days
	Mabini Building	Complete	upon receipt of

I		T , 11 , 1	MAD)
		Installation,	NTP)
		Configuration	
		and Acceptance	
		of the following:	
		 Distribution 	
		and Acess	
		Switch	
		 Access Point 	
		 Structured 	
		Cabling	
		• IP Telephony	
		• IP Based	
		Communication	
		System	
Mabini	Data	Complete	
Center	Zata	Installation,	
		Configuration	
		and Acceptance	
		of the following	
		• Smart Data	
		Center System	
		• Core Switch	
		Data Center	
		Fire Detection,	
		,	
		Alarm, and	
		Suppression	
		System	
		• Door Access	
		Control Data	
		Center	
		• • • • • • • • • • • • • • • • • • •	
		Airconditioning	
		Unit (3 units)	
		●Next	
		Generation	
		Firewall	
		●Link Load	
		Balancer	
		•Hyper-	
		Converged	
		Infrastructure	
		Appliance (HCIA)	
		●Network	
		Detection and	
		Response Data	
		Processor	
		Network	
		Detection and	
		Response Data	
		Collector	
		Endpoint	
		Detection and	
		Response	
		• IT Helpdesk	
		System	
		• Unified	
		endpoint	
		спаропп	

management and security software • IT Operations Management Applications Management Software • UPS & Backup Power System Complete Installation, Configuration and Access Point • Rizal Building • Rizal Building • Rizal Building • Rizal Building • Pull operation of the following: a Dorm D Full operation of the following: • Access Point • Structured Cabling • Prelephony • IP Based Communication System Full operation of the following: • Complete Installation, Configuration and Acceptance of the following: • Access Switch • Access Point • Structured Cabling Dorm E Complete Installation, Configuration and Acceptance of the following: • Access Switch • Access Point • Structured Cabling Amphitheater Amphitheater Complete Installation, Configuration and Acceptance of the following: • Access Switch • Access Point • Structured Cabling Complete Installation, Configuration and Acceptance of the following: • Access Point • Structured Cabling Complete Installation, Configuration and Acceptance of the following: • Access Point • Complete Installation, Configuration and Acceptance of the following: • Access Point • Structured Cabling Amphitheater Full operation Acceptance of the following: • Access Point • Structured Cabling Amphitheater Full operation Acceptance of the following: • Access Point • Structured Cabling It% (within 90 calendar days upon receipt of NTP)	 _			
of following: Dorm D Complete Installation, Configuration and Acceptance of the following: • Acess Switch • Access Point • Structured Cabling Dorm E Complete Installation, Configuration and Acceptance of the following: 15% (within 90 calendar days upon receipt of the following: • Acess Switch • Access Point • Structured Cabling Amphitheater Complete Installation, Configuration and Acceptance of the following:	2	of the following: • Aguinaldo Building • Alonzo Building • Bonifacio Building	and security software IT Operations Management: Applications Management Software UPS & Backup Power System Complete Installation, Configuration and Acceptance of the following: Distribution and Acess Switch Access Point Structured Cabling IP Telephony IP Based Communication	(within 80 calendar days upon receipt of
Cabling	3	of the following: Dorm D Dorm E	Installation, Configuration and Acceptance of the following: • Acess Switch • Access Point • Structured Cabling Complete Installation, Configuration and Acceptance of the following: • Acess Switch • Access Point • Structured Cabling Complete Installation, Configuration and Acceptance of the following:	(within 90 calendar days upon receipt of

	4	Delivery Knowledge Transfers Training Sessions	of and	Complete Installation, Configuration and Acceptance of the following: • Training for Access Point Fundamentals • Training for Enterprise Networking • Switching Solution • Training for Network and Guest • Management System • Training for Security Monitoring	10% (within 100 calendar days upon receipt of NTP)	
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Final Payment

Final payment shall consist of the full and final payment of the unpaid inspected and accepted goods, and services, subject to the submission of the required documents under the bidding documents.

(NOTE: The Supplier/Service Provider must furnish a copy of the abovementioned documents to DepEd Accounting and the End-user [ICTS-TID)] and the Contract Management Division of the Procurement Service, Central Office).

Payments shall be subject to the Warranty provision in the form of either retention money in an amount equivalent to five percent (5%) of every progress payment or the Contract Price, or a special bank guarantee in the amount equivalent to five percent (5%) of the Contract Price as provided under Section 62.1 of R.A. 9184 and its Revised IRR.

Release of retention money shall be at the expiration of the warranty period, or the remaining amount in case it has been utilized pursuant to the warranty provision.

3 **Performance Security**

The Performance Security shall be posted in favor of DepEd, and shall be forfeited in the event it is established that the Supplier is in default of any of its obligation under the contract. The Supplier/Service Provider shall be responsible for the extension of its performance security and/or renewal of its performance security whenever necessary and/ without need of prior notice or instruction from DepEd, to ensure that it is in force and effect for the whole duration of the contract delivery period and until a Certificate of Final Acceptance is duly issued.

Performance Security shall not contain any deletion, crossing-out, expunction, or any form of correction. Otherwise, DepEd may reject such security if any such intercalation, superimposition, or alteration affects any material information, or feature of the document.

4 Inspection

Pursuant to DO 041, s. 2021, inspection or pre-delivery inspection (PDI), where applicable for goods to be delivered, shall be conducted by DepEd through the duly designated Inspectorate Team. The inspection or PDI shall be made upon notice to the DepEd of the readiness of the goods for inspection.

The Supplier/Service Provider shall coordinate with DepEd, through the **Procurement Management Service-Contract Management Division** (**ProcMS-CMD**), on the conduct of inspection or pre-delivery inspection (PDI). Any request for inspection or PDI shall be done in writing, and contain the following information:

- 1. Project Title and Contract Number;
- 2. Specific goods for inspection;
- 3. Quantity of goods for inspection;
- 4. Venue/Address of inspection site; and
- 5. Proposed schedule of inspection which must be at least ten (10) calendar days from the submission of the letter request.

The request for inspection or PDI shall be addressed to ProcMS-CMD, and must be submitted through email at procms.cmd@deped.gov.ph.

Pre-delivery and Pre-implementation Conference shall be conducted prior to the inspection of goods by the designated DepEd Inspectorate Team, as may be necessary or applicable.

Prior to and for purposes of inspection, the Supplier/Service Provider shall ensure convenient access to the goods for inspection. The Supplier/Service Provider shall assign personnel to undertake the handling, unpacking, assembly, commissioning, disassembly, repacking, resealing, and sorting of the goods prior to, during, and after the inspection.

DepEd shall have the right to visit and inspect the Supplier's/Service Provider's premises covered by the Contract, at any time or stage of contract implementation, to monitor and assess the Supplier's/Service Provider's capacity to discharge its contractual obligations.

Goods with defects or non-compliant with the required technical specifications upon delivery shall be rejected, orally or in writing, by DepEd and replaced by the Supplier/Service Provider in accordance with the warranty provision of this bidding document. The Supplier/Service Provider shall replace all rejected goods within five (5) calendar days from its receipt of the Notice of Rejection from the recipient schools. The replacement goods shall be subject to re-inspection.

Goods are considered defective when they are unfit for the use for which it is intended or its fitness for such use is diminished to such an extent that, had DepEd been aware thereof, it would not have acquired it or would have given a lower price for it.

Defects in the goods can either be patent or latent. A patent defect is one that is apparent to the buyer or normal observation. It is an apparent or obvious defect. On the other hand, a latent defect is one that is not apparent to the buyer by reasonable observation. A latent defect is hidden or one that is not immediately determinable.

Post-production tests:

- 1. Joint commissioning, testing and acceptance test (all active components are power up and functional); and
- 2. Quality and functionality of the installation and/or equipment and the workmanship.

Other tests to be performed:

- 1. The winning bidder must conduct commissioning and testing ensure the maximum level of reliability by reviewing and testing the physical design of the CCTV Solution as a whole.
- 2. The winning bidder may request for approval of schedule for joint commissioning and testing from ICTS -TID and DepEd Inspectorate team at least seven (7) days after all active components are power up and functional.
- 3. The joint testing scope will include the quality and functionality of the installation and/or equipment and the workmanship.
 - a. Fiber Splicing and Termination Acceptance Test (Annex C)
 - b. Cat6 Cabling Acceptance Test (Annex D)
 - c. Switch Stress and Functionality Test. (Annex E)
 - d. CCTV Functionality Test (Annex F)
- 4. Any defect(s) observed on the commissioning and testing shall be properly documented. All defect(s) shall be rectified by the contractor within five (5) days and subject for another specific joint acceptance test provided that the activities are free of cost to DepEd.
- 5. Upon completion of Commissioning and Testing, DepEd shall issue a certificate of acceptance subject for payment.

5 Warranty

Comprehensive and on-site warranty for the non-expendable goods shall be applied, detailed as follows:

	Items	Warranty Period
a.	UPS, 3.0KVA	One (1) year warranty
b.	UPS, 1.5KVA	certificate shall be
c.	Gent set	issued by the solution
d.	ATS	provider
e.	Day tank	
a.	Core switch	Three (3) years
b.	Distribution Switch	warranty certificate
c.	PoE Access Switch	shall be issued by the
d.	Wireless Access Point	solution provider
e.	Wireless Controller	•
a.	Network Management System	Three (3) years
b.	Guest and BYOD Management System	subscription and
		warranty
a.	Endpoint Security	Three (3) years
b.	Security Intelligent Threat Detection and	subscription and
	Response Platform	warranty
c.	Security Operations Management	33 33
d.		
e.	IT Operations Management: Applications	
	Management software (Enterprise)	
f.	Unified Endpoint Management and Security	
	Software (Enterprise)	
g.	NGFW Unified Threat Protection (UTP) (IPS,	
8.	Advanced Malware Protection, Application	
	Control, URL, DNS & Video Filtering,	
	Antispam Service)	
h.	Link Load balancer	
i.	Hyper-Converged Infrastructure Appliance	
a.	Smart cabinets	Three (3) years
b.	Air Conditioning Unit	warranty
c.	Door Access Control System	33 33
d.	Fire Suppression System	
e.	Lighting System	
a.	IP Telephony System	Three (3) years
	IP Based Public Address System	warranty
a.	Installed structured cabling system	Twenty-five (25) years
a.		system warranty
		certificate shall be
		issued by the Cabling
		System Manufacturer
a.	Products (fiber patch panels, pigtails,	Twenty-five (25) years
a.	adapter plates, fiber patch cords)	warranty
b.		
c.	Products (Patch Panel, UTP jack, Faceplate,	
~	patch cord)	
Ь	UTP Cable	
ч.		

The indicated warranty period shall reckon from the date of issuance of the Certificate of Final Acceptance by the DepEd that the delivered goods have been duly inspected and accepted (i.e. final acceptance).

Payments shall be subject to the Warranty provision in the form of either retention money in an amount equivalent to five percent (5%) of every progress payment or the Contract Price, or a special bank guarantee in the amount equivalent to five percent (5%) of the Contract Price as provided under Section 62.1 of R.A. 9184 and its Revised IRR. Replacement and/or repair of test materials shall only be applicable if printing defects and/or non-compliance with the technical specifications are discovered prior to test administration.

Replacement and/or repair of the goods may be requested within the aforementioned warranty period. Replacement of the goods shall be made within seven (7) calendar days upon claim or request therefor. The said replacement must be of the same branding specification and installed prior to pull-out of the defective or unrepairable unit/s. On-site repair of the goods must be made on the next business day upon claim or request therefor.

In case the Supplier/Service Provider opts for retention money, the amount shall only be released after the lapse of the entire warranty period, unless during the remainder of the warranty period, the retention money is substituted with a special bank guarantee as prescribed above.

The **Special Bank Guarantee** shall not contain any deletion, crossing-out, expunction, or any form of correction. Otherwise, DepEd may reject such security if any such intercalation, superimposition, or alteration affects any material information, or feature of the document.

Section VI. Schedule of Requirements

A. List/Description of Goods / Services

The delivery schedule expressed below stipulates the date of delivery to the project site.

Lot No.	Description	Items	Delivery Period
1	Supply, Delivery, Installation, Testing, Training and Maintenance of Department of Education Central Office Network Rehabilitation Project 2022	Structured Cabling (Fiber and Copper) Installation, Configuration and User Training for Network Active Components and Network and Guest Management Installation, Configuration and User Training for Cyber Security Monitoring System Data Center Upgrade Installation, Configuration and User Training for Unified IP Telephone System Installation, Configuration and User Training for UPS and Backup Power System Installation, Configuration and User Training for IP Based Unified Paging System	Within one hundred (100) calendar days upon receipt of Notice to Proceed (NTP)

B. Delivery Schedule

Complete delivery of the goods and performance of services shall be made within **one hundred (100) calendar days** upon receipt of the NTP.

C. Delivery Sites

Goods shall be delivered and inspected, and services shall be rendered at the DepEd Central Office, DepEd Complex, Meralco Avenue, Pasig City.

Statement of Compliance

I/We have read and understood the requirements/scope of service/terms of reference and conditions stipulated herein and shall therefore comply to the conditions set forth in the Contract with respect to this **Section VI. Schedule of Requirements**, if our bid is considered for award.

Name and Signature of Bidder's Authorized Representative

Section VII. Technical Specifications and Terms of Reference

Technical Specifications

Item	Specification	Statement of Compliance
		[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.]

A. General Specification

ITEM NO.	SPECIFICATIONS	STATEMENT OF COMPLIANCE (STATE COMPLY OR NOT COMPLY	BIDDER'S ACTUAL OFFER
1	The prospective bidder shall be involved in System Integration and shall have at least ten (10) years' experience in undertaking similar project.		
2	The prospective bidder must have a Project Management Professional (PMP) in-charge in Project Management. Must have the following qualifications: Bachelor's Degree, three (3) years' work experience, trained and certified in project management. Must attach certification and curriculum vitae and written commitment stating that the expert shall work for the project once awarded the contract.		
3	The prospective bidder must have Certified Data Center Professional (CDCP) for the checking of the deployment in the field. Must have the following qualifications: Bachelor's Degree, one (1) year work experience, trained and certified Data Center Professional. Must attach certification and curriculum vitae of each nominated expert and written commitment stating that the professional expert shall work for the project once awarded the contract.		
4	The prospective bidder must have Certified Data Center Expert (CDCE) for the design of the data center. Must have the following qualifications: Bachelor's Degree, licensed professional engineer, five (5) years' work experience, trained and certified Data Center Expert. Must attach certification and curriculum vitae of each nominated expert and written commitment stating that the professional expert shall work for the project once awarded the contract.		

	The Prospective bidder must have	
	a Certified Safety Officer to impose	
	safety measures during the	
	deployment. Must have the	
	following qualifications: Bachelor's	
	Degree, one (1) year work	
_	experience, trained and certified by	
5	DOLE accredited training center.	
	Must attach certification and	
	curriculum vitae of each	
	nominated Expert and written	
	commitment stating that the	
	expert shall work for the project	
	once awarded the contract.	
	The prospective bidder shall have	
	() 1	
	certified designer or installer by	
	the Cabling Manufacturer. Must	
	have the following qualifications:	
	Bachelor's Degree, one (1) year	
6	work experience, trained and	
	certified by the Cabling	
	Manufacturer. Must attach	
	certification and curriculum vitae	
	of each nominated Expert and	
	written commitment stating that	
	the expert shall work for the	
	project once awarded the contract.	
	The prospective bidder shall have	
	at least one (1) Certified Network	
	Engineer on the network	
	equipment. Must have the	
	following qualification: Bachelor's	
7	Degree, three (3) years work	
_ ′	experience. Must attach	
	certification and curriculum vitae	
	of each nominated Expert and	
	written commitment stating that	
	the expert shall work for the	
	project once awarded the contract.	
	The prospective bidder shall	
	submit Letter of Authorization and	
	Certificate of Approval from the	
	Cabling System Manufacturer	
	where the cabling will be	
8	implemented, stating that the	
	prospective bidder is an authorized	
	business partner and certified	
	installer and designer of that	
	Cabling System Manufacturer.	
	The prospective bidder shall	
	submit Letter of Warranty Support	
9	from the Cabling System	
	Manufacturer stating that the	
	manulaciuloi statilig tilat tile	

	Cabling Installation of the Solution	
	Provider shall be supported by 25	
	years System Warranty to be	
	issued by the Cabling System	
	Manufacturer (not by the Solution	
	Provider) which would cover	
	products, cables, and application	
	guarantee for 25 years.	
	Solution provider should have a	
10	PCAB license for communication	
	facilities.	
	The prospective bidder must	
	provide a solution that is branded	
11	and brand new. The solution must	
11	be from a reputable international	
	brand with local presence and	
	local depot of parts and supplies	
	The prospective bidder shall	
12	perform the supply, delivery,	
12	installation, configuration, fine-	
	tuning and testing of System	
	The prospective bidder shall	
	deliver the necessary software,	
13	hardware, materials, licenses and	
13	other components not mentioned	
	in the specification but are	
	required to operate the System	
	The prospective bidder shall	
	perform the necessary fine-tuning,	
14	upgrade, redesign or replacement	
14	of appliance to ensure the	
	optimum performance of the	
	System	
		 -

B. Detailed Technical Specification

Detailed	Specific Requirements		
Item No.	Technical Specifications	STATEMENT OF COMPLIANCE (State Comply or Not Comply)	BIDDER'S ACTUAL OFFER
1	FIBER OPTIC & COPPER STRUCTURED CABLING MATERIALS (1 LOT)		
1.1	Fiber Optic Cabling – Single Mode		
	The supplier shall carry out design, engineering, installation, cabling connections, testing, and commissioning of the Fiber Backbone system		
	 a. Fiber Optic Cable 24 Core Fiber Cable, Multi-tube SM9/125, CST, PE 		

• 2 Runs 24-Core Fiber Cable	
• Applications:	
 Suitable for direct buried, aerial or 	
duct installation	
• Compliances:	
 ITU-T G652D / ITU-T G657A1 	
• ANSI/TIA 568-C.3	
• IEC-794	
 RoHS 	
• Optical performance:	
• Wavelength: 1310	
 Fiber Cable Cladding: 9/125 μm 	
b. Fiber Optic Pigtail	
• Fiber optical pigtail, SM 9/125um,	
0.9mm LSOH	
• Length: 1 meter	
• Connector Type: LC	
• Insertion Loss: ≤0.3dB	
• Interchange capability (1000 times):	
<0.1dB	
• Impact 1.5mm drop, 8 times: <0.1dB	
• Working temperature: -20°C~60°C	
• Compliances:	
 Meets with TIA/EIA-568-B.3 and 	
ISO/IEC 11801 specifications for	
insertion loss and return loss	
 RoHS compliant 	
_	
c. Fiber Optic Patch cord	
c. Fiber Optic Patch cordFiber Optic Patch Cord Single Mode	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2- 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3- 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2- 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 RoHS compliant 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 RoHS compliant d. Fiber Optic Patch Panel & 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 ROHS compliant d. Fiber Optic Patch Panel & Accessories 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 RoHS compliant d. Fiber Optic Patch Panel & Accessories Main Body: 19" Fiber Optic Patch Panel 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 RoHS compliant d. Fiber Optic Patch Panel & Accessories Main Body: 19" Fiber Optic Patch Panel Color: Black 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 RoHS compliant d. Fiber Optic Patch Panel & Accessories Main Body: 19" Fiber Optic Patch Panel Color: Black FEATURES: 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 RoHS compliant d. Fiber Optic Patch Panel & Accessories Main Body: 19" Fiber Optic Patch Panel Color: Black FEATURES: Three adapter slots can be covered 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 RoHS compliant d. Fiber Optic Patch Panel & Accessories Main Body: 19" Fiber Optic Patch Panel Color: Black FEATURES: Three adapter slots can be covered by SC, ST, LC or FC-D-flange 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 RoHS compliant d. Fiber Optic Patch Panel & Accessories Main Body: 19" Fiber Optic Patch Panel Color: Black FEATURES: Three adapter slots can be covered by SC, ST, LC or FC-D-flange adapter panels of 4,6 or 8 ports, or 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 RoHS compliant d. Fiber Optic Patch Panel & Accessories Main Body: 19" Fiber Optic Patch Panel Color: Black FEATURES: Three adapter slots can be covered by SC, ST, LC or FC-D-flange adapter panels of 4,6 or 8 ports, or with blank panels. Splice cassette with cable routings available 	
 c. Fiber Optic Patch cord Fiber Optic Patch Cord Single Mode (SM) 9/125um, 5 meters Compliances: Meets TIA/EIA 568-B.3 standard Fiber meets ITU G652D & G655 and IEC60793-2 Connectors meet IEC60874 and IEC 61754 Environmental and mechanical tests based on IEC 61300-2-1,2,4,5,6,17, IEC61300-3-1,4,11,IEC 60332, IEC60754-1,2 RoHS compliant d. Fiber Optic Patch Panel & Accessories Main Body: 19" Fiber Optic Patch Panel Color: Black FEATURES: Three adapter slots can be covered by SC, ST, LC or FC-D-flange adapter panels of 4,6 or 8 ports, or with blank panels. Splice cassette with cable routings 	

	• Fits all standard 19 inch racks,
	height / port number: 1U / 24ports
	Smooth sliding tray with self lock
	function can be opened up to an
	155° angle
	Material/thickness of body and
	adapter panels: cold rolled steel/1.6
	mm
	TIA/EIA 568-B.3 compliant
	o RoHS compliant
	Patch Panel adapter accessories:
	8port LC adapter panel, duplex,
	black
	SM adapter fully loaded
	e. Fiber Optic cable additional
	requirement:
	All Fiber optic cabling materials (Fiber
	cable, fiber pigtails, fiber adaptors,
	fiber enclosures and fiber trays) should
	be of the same brand.
	• The fiber optic cable should be
	terminated through fusion splicing
	only.
	Proper labels should be done during
	installation.
	o Water and temperature
	resistant
	o Laminated and with strong
	adhesive
	Dada waistant
	o Easy peel with no sticky
	residue
	o Chemical and abrasion-
	resistant
	Testing of fiber links (OTDR test).
	Documentation of Test have at least
	results.
1.2	Fiber Optic Cabling - Multimode
	a. Fiber Optic Cable
	• 6 Core Fiber Cable, OM4, Multimode,
	Indoor
	2 Runs 6-Core Fiber Cable
	Applications:
	Suitable for aerial installation
	Long distance communication
	system.
	Outside plant environments Complian and
	• Compliances:
	• ITU-T G652D / ITU-T G657A1
	• ANSI/TIA 568-C.3
	• IEC-794
	RoHS

	b. Fiber Optic Pigtail	
	• Fiber optical pigtail, OM4, 0.9mm	
	LSOH	
	• Length: 1meter	
	Connector Type: LC	
	Insertion Loss: ≤0.3dB	
	• Interchange capability (1000 times):	
	<0.1dB	
	• Impact 1.5mm drop, 8 times: <0.1dB	
	• Working temperature: -20°C~60°C	
	• Compliances:	
	Meets with TIA/EIA-568-B.3 and Meets with TIA/EIA-568-B.3 and	
	ISO/IEC 11801 specifications for	
	insertion loss and return loss	
	RoHS compliant	_
	c. Fiber Optic Patch cord	
	• Fiber Optic Patch Cord OM4	
	Multimode (MM) 50/125um, 5meter	
	Compliances:	
	 meets TIA/EIA 568-B.3 standard 	
	 meets ITU G651 standard 	
	 connectors meet IEC60874 and IEC 	
	61754	
	 environmental and mechanical 	
	tests based on IEC 61300-2-	
	1,2,4,5,6,17, IEC61300-3-	
	1,4,11,IEC 60332, IEC60754-1,2	
	• RoHS compliant	
	d. Fiber Optic Patch Panel &	
	Accessories	
	Main Body: 19" Fiber Optic Patch Panel	
	Color: Black	
	• FEATURES:	
	Unique modular design and full	
	range of accessories allows to	
	assembly a patch panel as needed	
	Three adapter slots can be covered	
	by SC, ST, LC or FC-D-flange	
	adapter panels of 4,6 or 8 ports, or	
	with blank panels.	
	 Splice cassette with cable routings 	
	available	
	 Position of splice cassette 	
	adjustable	
	 Fits all standard 19 inch racks, 	
	height / port number: 1U / 24ports	
	 Smooth sliding tray with self lock 	
	function can be opened up to an	
	155° angle	
	 Material/thickness of body and 	
	adapter panels: cold rolled steel/1.6	
1	mm	

	T	T
	Material of splice cassette and cable	
	routing: ABS	
	• TIA/EIA 568-B.3 compliant	
	 RoHS compliant 	
	Patch Panel adapter accessories:	
	• 8port LC adapter panel, duplex,	
	black	
	MM adapter fully loaded	
	e. Fiber Optic cable additional	
	_	
	requirement:	
	All Fiber optic cabling materials	
	(Fiber cable, fiber pigtails, fiber	
	adaptors, fiber enclosures and	
	fiber trays) should be of the	
	same brand.	
	• The fiber optic cable should be	
	terminated through fusion	
	splicing only.	
	Proper labels should be done	
	during installation.	
	Water and temperature	
	resistant	
	o Laminated and with	
	strong adhesive	
	D 1	
	• Easy peel with no sticky	
	residue	
	o Chemical and abrasion-	
	resistant	
	• Testing of fiber links (OTDR	
	test).	
	 Documentation of Test results. 	
1.3	Copper Structured Cabling (800 nodes)	
	The proposed structured cabling solution	
	shall provide the following components:	
	CAT6 Cable	
	UTP Jack Module	
	24 Patch Panel Loaded	
	Single/Dual Faceplates	
	CAT6 Patch Cords	
	Roughing-ins	
	UTP Cable Specification	
	• The UTP cable should be of Category 6	
	class.	
	The electrical performance of the UTP	
	cable should have undergone a	
	certified performance in a 4-connector	
	configuration up to 100 meters that	
	meets the standards of ANSI/TIA-568-	
	·	
	C.2, ISO 11801 2nd Edition Class E	
	and IEC 61156-5 Category 6 channel	
	and component requirements	

•	The UTP conductor should be 23 AWG	
	solid copper and insulated with HPDE	
•	The UTP flame rating is at least PVC	
	(CM). The UTP sheath thickness should be	
	0.5mm nominal	
U	TP Jack Module Specification	
•	m1	
	to TIA/EIA-568C.2, ISO/IEC 11801	
	and EN50173-1 specifications.	
•	J J	
	22-26 AWG solid cables.	
•	The UTP jack Dielectric Strength should 1000V RMS for 1min.	
	The UTP jack module Current Rating	
	should be 1.5Amp Max.	
•	The UTP jack module Contact	
	Resistance should be 10MΩ Min.	
•	The UTP jack module Insulation	
	Resistance should be $2m\Omega$ per contact.	
•	The UTP jack module Material Flame	
D	Rating should be UL94 V-0. atch Panel	
	771 . 1 1 1 1 1	
	standard EIA 19" racks	
•	The capacity of the patch panel should	
	be 24 ports	
•	The patch panel style should be Flat	
F	aceplate	
•	The faceplate should be able to hold 1	
	ports The feedulate should be able to held 0	
	The faceplate should be able to hold 2 ports	
	The faceplate should be white	
Pe	atch Cord	
•	The patch cord should be 3 meters in	
	length (for endpoint) and 1 meter (for	
	connection to patch panel)	
•	The UTP conductor should be 24 AWG solid copper and insulated with HPDE.	
	The UTP flame rating is at least PVC	
	(CM).	
•	The patch cord should be using RJ45	
	contacts 50µ inch gold plated	
•	The patch cord should be using Molded	
	snag proof boot The patch cord should be compliant	
•	with Cat.6 standards as:	
	 ANSI/TIA 568-C.2:2011 	
	• ISO/IEC 11801 Class E:2011	
	(Edition 2.2)	
	• CENELEC EN 50173-1:2011	
	• CENELEC EN 50288-6-2:2013	

	• IEC 61935-2:2010 (Edition 3.0)	
	• IEC 61156-6:2012	
	• ETL Verified	
	• The patch cord should be Compliant	
	with safety standards as:	
	• IEC 60332-1-2:2004	
	• RoHS compliant (EU Directive	
	2011/65/EC)	
	Structured Cabling system additional	
	requirements	
	• All structured cabling materials (UTP	
	cable, UTP jack module, patch panel,	
	faceplate, etc) should be of the same	
	brands.	
	• UTP cables dropped in office can use	
	molding.	
	• All data ports installed in the	
	workstation and in the patch panel	
	should be labeled.	
	• All data ports should be tested with a	
	cable tester that tests the following:	
	Pair lengths, opens, shorts, splits,	
	crossed, straight through and cable ID.	
	IDF Cabinet 22U Wall Mount (35 units)	
	The supplier shall supply, deliver and	
	install wall mount data cabinet as IDF to	
	areas specified:	
	• 600 mm (deep) x 600 mm (wide) x	
	1080 mm (height)	
	Wall mount cabinet offers and	
	economical and cost effective solution	
1.3	for smaller installations where space	
	is limited	
	• Cable entry from top and bottom	
	 Up to 60 kgs static loading capacity 	
	Toughened glass front door with over	
	180 deg angle	
	• Lockable side door east to open for	
	installation	
	Installed with two (2) Fan Unit	
2	NETWORK ACTIVE COMPONENTS	
	The supplier shall supply, deliver, install,	
	configure and conduct tests to Wired and	
0.1	Wireless Networks	
2.1	Core Switch (2 units)	
	The switch must be rack-mountable (into	
	standard 19" wide racks) The switch must not be larger than a 3PII	
	The switch must not be larger than a 3RU form factor	
	The switch must have at least support 32	
	x 40 Gigabit Ethernet ports : but also	
	support 16 x 100 Gigabit Ethernet ports	
	The switch must support high-capacity up	

	to 3.0 Terabit switching fabric and 1 Bpps	
	packet forwarding provide powerful data	
	transfer capability	
	The switch must support the following	
	transceivers:	
	• SFP	
	• SFP+	
	• QSFP+	
	OSFP28	
-	The proposed switch must be managed by	
	a single network monitoring system	
_	The proposed networking solution must be	
	of the same brand for ease of management	
	The switch must support at least 16GB	
	DDR SDRAM with 16GB of Flash Memory	
	The switch must support up to 80K of MAC	
	address entries	
	The switch must support Address	
	Resolution Protocol (ARP)	
	The switch must support Routing	
	Information Protocol (RIP and RIPv2)	
	,	
	The switch must support Open Shortest Path First	
	The switch must support Border Gateway	
	Protocol 4 (BGP-4)	
	The switch must support virtual	
	technology to make a pair of switches into	
	one virtual switch	
	The switch must support VRF for network	
	segmentation	
	The switch must support Dual Hot-	
	swappable power Supplies	
	The switch must support full IPv6	
	The switch must support IEEE 802.1p	
	Classification and priority tagging	
	The switch must support policy based QoS	
	The switch must support PBR and routes	
	map	
	The switch must support Out-of- band	
	10/100/1000T Management port	
	The switch must provide a visual way of	
	identifying the switch for maintenance	
	The switch must support built-in RFID for	
	easy identification	
	The switch must support SNMPv1/2c/3	
	The switch must support the following	
	management interface: Console, telnet and	
	SSH	
	Must include 3-meter 40G QSFP+ Cable	
2.2	Distribution Switch (10 units)	
	The switch must be rack-mountable (into	
	standard 19" wide racks)	
	The switch must not be larger than a 3RU	
	The switch must not be larger than a SKO	

	·	<u> </u>
form f		
	witch must support 24 x 1/10/25 +	
	/100 Gigabit Ethernet ports	
	witch must support high capacity up	
	3 Terabit switching fabric and 900	
	packet forwarding provide powerful	
	ransfer capability	
The s	witch must support the following	
transo	ceivers:	
•	SFP	
•	SFP+	
•	QSFP+	
•	QSFP28	
The p	roposed switch must be managed by	
_	le network monitoring system	
	roposed networking solution must be	
	same brand for ease of management	
1	witch must support at least 16GB	
	SDRAM with 16GB of Flash Memory	
	3	
	vitch must support up to 80K of MAC ss entries	
The	switch must support Address	
	ation Protocol (ARP)	
The	switch must support Routing	
	nation Protocol (RIP and RIPv2)	
	witch must support Open Shortest	
Path I		
	witch must support Border Gateway	
	col 4 (BGP-4)	
The	switch must support virtual	
	ology to make a pair of switches into	
one vi	rtual switch	
The sv	witch must support VRF for network	
segme	entation	
The	switch must support Dual Hot-	
	pable power supplies	
	witch must support full IPv6	
	witch must support IEEE 802.1p	
	fication and priority tagging	
	witch must support policy based QoS	
	witch must support PBR and routes	
	when must support I bit and routes	
map The s	witch must support Out of hand	
	witch must support Out-of- band	
	00/1000T Management port	
	witch must provide a visual way of	
	fying the switch for maintenance	
	witch must support built-in RFID for	
	dentification	
The sv	witch must support SNMPv1/2c/3	
The s	witch must support the following	
mana	gement interface: Console, telnet and	
SSH		
Must	include necessary SFP+ and QSFP+	
· · · · · · · · · · · · · · · · · · ·	<u> </u>	1

	transceivers necessary to run the system	
2.3	Access PoE Switch (32 units)	
	The switch must be rack-mountable (into	
	standard 19" wide racks)	
	The switch must support 24 port Full Poe	
	+ 4 x 1/10 Gigabit Ethernet ports (With 8	
	MultiGig Ports up to 10G)	
	The switch must support high-capacity up	
	to 350 Gbps switching fabric and 260	
	Mpps packet forwarding provide powerful	
	data transfer capability	
	The proposed switch must be managed by	
	a single network monitoring system	
	The proposed networking solution must be	
	of the same brand for ease of management	
	The switch must support at least 4GB	
	DDR SDRAM with 4GB of Flash Memory	
	Supports stacking of up to 160 Gbps	
	stacking bandwidth	
	The switch must support up to 32K of MAC	
	address entries	
	The switch must support Address	
	Resolution Protocol (ARP)	
	The switch must support Routing	
	Information Protocol (RIP and RIPv2)	
	The switch must support Open Shortest	
	Path First	
	The Switch must support PoE+ based on	
	IEEE 802.3at. The switch is able provide	
	up to 30 Watts of power per port to PoE	
	devices	
	The switch must support 9KB Jumbo	
	Frames	
	The switch must support Out-of- band	
	10/100/1000T Management port	
	The switch must support SNMPv1/2c/3	
	The switch must support the following	
	management interface: Console, telnet and SSH	
	Must include 3-meter 10G SFP+ Cable	
	Must include necessary SFP+ transceivers	
2.4	necessary to run the system Wireless Access Point (230 units)	
4.4		
	The proposed solution must be performance Dual Radio 802.11ax AP with	
	OFDMA and Multi-User MIMO (MU-MIMO)	
	The proposed solution must support up to	
	5.38 Gbps data rates on 802.11AX Support 4x4 uplink/downlink MU-MIMO	
	1 ,	
	with four spatial streams	
	Supports 802.11ax Target Wait Time	
	(TWT) to support low-power client devices Auto sensing link speed	
	Auto sensing link speed	

	(100/1000/2500/5000 Base-T)	
	The access point shall be able to support	
	full radio features at 802.3at	
	The access point must support flexible	
	radio assignment that supports dual-radio	
	capability	
	The wireless network can track anomalies	
	and allows on demand review of packets	
	The access point shall support containers	
	to host applications	
	Supports Serial Console Interface	
	Supports Kensington security slot or	
	equivalent	
	The proposed solution must support an	
	integrated Bluetooth Low-Energy (BLE)	
	Supports USB 2.0 host interface (Type A	
	connector)	
0.5	Access Controller for Wireless Access	
2.5	Points (2 units)	
	The proposed solution must be self-	
	contained, integrated, overlay solution,	
	not requiring upgrades or enhancements	
	to existing routers and switches	
	The proposed solution must have a	
	chassis and box 1+1 fast failover	
	redundancy with sub-second failover time	
	The proposed solution must support same	
	software, configurations and product	
	functionality across all platforms in the	
	product family proposed	
	The proposed solution must be a cluster in	
	Active Standby Mode	
	Supports up to maximum of 500 access	
	points	
	Support up to 10,000 number of	
	concurrent connected wireless clients	
	Supports 2 x 10GB Multigig Fiber	
	Connections and 4 x 1GB Copper	
	Connections	
	Supports Real Time RF Management in	
	your wireless network	
	Supports Layer 2 and Layer 3 roaming	
	capabilities	
	Supports Opportunistic Key Caching	
	(OKC)	
	,	
	The system must support Pairwise Master	
	Key (PMK) caching	
	Support Command line interface to control	
	and manage all aspects of the system on	
	the controller/switch	
	The Wireless Controller should be of the	
	same brand as the Wireless Access Point	
	SSH must be supported and must be the	

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	default CLI access technology. Real-time	
	configurable system changes, not	
	requiring reboots or re-compilation to	
	affect changes	
2.6	Guest and BYOD Management (1 lot), 3	
2.0	years subscription	
	The proposed solution must not lock	
	users out of access but offer remediation	
	or access through a Guest VLAN. This is	
	to isolate non-compliant systems;	
	restricts and controls access of devices	
	that are not managed, including but not	
	limited to BYOD	
	The proposed solution should be	
	configurable to provide user notifications	
	(e.g. provide Support Numbers to call)	
	without IT involvement. This increases	
	usability and staff efficiency in large scale	
	deployments	
	The proposed solution must be OS and	
	Hardware Agnostic for Device Detection &	
	Isolation. With the increase in Mobile	
	devices (and BYOD) it is essential to	
	incorporate a solution which can detect	
	systems regardless of their operating	
	system	
	The proposed solution must allow access	
	control rules specification, with	
	granularity and detail, for all types of	
	resources and using any secure remote	
	access method/mode. The rules definition	
	should be granular and support at least	
	the following parameters:	
	 UserID (user/group pair and 	
	authentication repository)	
	Device Classification (Identity and	
	Integrity)	
	• Location	
	Resource/Device Type	
	• Date/ Time	
	• Posture	
	Access Method	
	Custom conditions Support BADILIS & TACACS+	
	Support RADIUS & TACACS+	
	The solution must be able to perform	
	automated access control enforcement	
	during emergency or outbreak. Lateral	
	movement (user-to-user traffic) will be	
	restricted in this mode to prevent further	
	outbreak	
	The proposed solution must support MAC	
	Address Authentication/Authorization for	
	authorized network users	

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	The proposed solution must have the	
	ability to allow Guest to request access via	
	a web portal for User Name & Password	
	The proposed solution should have the	
	ability to treat non-validated devices as	
	BYOD devices	
	The proposed solution should support OS	
	Independent detection - any OS can be	
	detected and controlled by policy	
	The proposed solution must have Security	
	Dashboard	
	The proposed solution must have granular	
	User Access controls with ability to limit	
	management functions and views for	
	various support organizations	
	The solution must provide high-	
	availability features, providing stateful	
	failover (without loss of information) and	
	zero downtime (Active-Active or Active-	
	,	
	Standby clustering) in the event of a component failure for all modules that	
	_	
	eventually comprise the solution The solution must have internal	
	Certificate Authority (CA) support	
	The solution must be able to provide	
	automatic certificate revocation when a	
0.7	device is lost/stolen	
2.7	NMS Server Appliance (2 units)	
	CPU: 2.1 Ghz 4110/85W 8C/DDR4	
	HDD: 600GB 12G SAS 10K RPM	
	NETWORK: Quad Port 1GB Adapter	
	RAM: 32GB DDR4	
	RAID CONTROLLER: 12GB Modular RAID	
	controller	
2.8	Network Management (250 nodes), 3	
	years subscription	
	Should be a comprehensive solution to	
	manage, visualize and monitor the	
	network from a single graphical interface	
	for wired and wireless network devices	
	The solution to provide single point of	
	operations for network-wide automation	
	and control	
	The solution should support policy based	
	automation that simplifies and abstracts	
	the network management complexities of	
	deployment & provisioning across	
	enterprise	
	The solution should have support for	
	standard southbound protocols that	
	enables it to communicate with breadth of	
	network devices	
	The solution should offer real-time	

	T
network performance insights for the	
entire enterprise	
The solution shall be possible to allocate the above access level per configuration	
type and/or devices type.	
The solution shall support local and	
external user authentication mechanisms.	
Support for TACACS based authentication	
The solution shall support multiple user	
roles with different operational privileges.	
The solution shall permit multiple	
concurrent user logins	
Proposed solution should auto discover	
the network elements as well as their	
current status	
Solution should support multiple	
protocols for the devices to be discovered	
Automation tool should support multiple	
protocols to retrieve the network	
information	
The Solution should have option to	
automate and schedule discovery process	
The Solution should support Subnet-	
based auto-discovery of in-band and out-	
of-band network elements	
Supports regular polling of network	
devices	
Proposed solution should be able to	
display the current running configuration	
of the network device	
The solution should allow the user to	
connect to the devices to execute CLI	
The proposed should allow the user to view	
the Layer2/Layer 3 topology maps in real-	
time graphical representation	
The proposed solution shall provide the	
capability to search devices in the topology	
map	
The proposed solution allow to	
create/customize the layout of the	
topology maps and save them to view later	
The proposed solution shall be possible to	
perform troubleshooting from network	
maps view	
The proposed solution shall allow the user	
to import software images from different	
sources	
The proposed solution should have a	
central repository to store all the Software	
images	
The proposed solution should have the	
capability to activate the image later based	
on the network conditions	

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	The proposed solution shall have a		
	provision to re-schedule the failed software		
	image upgrade tasks		
	The proposed solution shall be able to		
	provide a high level and drill down		
	reporting views of the status of network		
	environment.		
	40GB LR Fiber Optic Modules Single		
	Mode (44 units)		
	 SFP module should be compatible 		
	for single-mode fiber		
2.9	SFP module should have Duplex LC		
	<u>-</u>		
	connector, operates on standard		
	single-mode fiber-optic link spans		
	of up to 10 km		
	10GB SR Fiber Optic Modules		
	Multimode Mode (70 units)		
	SFP module should be compatible		
	<u>-</u>		
2.10	for single-mode fiber		
	SFP module should have Duplex LC		
	connector, operates on standard		
	OM4 multi-mode fiber-optic link		
	spans of up to 400 m		
	TRAINING		
	Conduct Training and providing		
	appropriate certification must be issued		
	to the participants.		
	a. Training for Access Point		
	Fundamentals		
	i. Mode of Delivery: Face to		
	Face Training		
	ii. No. of Trainees: 5 Pax		
2.11	b. Training for Enterprise		
2.11			
	Networking Switching Solution		
	i. Mode of Delivery: Face to		
	Face Training		
	ii. No. of Trainees: 5 Pax		
	c. Training for Network and		
	Guest Management System		
	i. Mode of Delivery: Face to		
	Face Training		
	ii. No. of Trainees: 5 Pax		
3.0	CYBER SECURITY MONITORING		
	SYSTEM		
3.1	NEXT GENERATION FIREWALL (2 units)		
	The supplier shall carry out installation,		
	configuration & testing of an application-		
	centric, scalable, and secure SD-WAN		
	solution with Next Generation Firewall		
	(NGFW) capabilities for mid-sized to large		
	, , ,		
	enterprises deployed at the campus or		
	I because love Heatasta accepted avilant	1	
	branch level. Protects against cyber		

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threats with system-on-a-chip	
acceleration and industry-leading secure	
SD WAN in a simple, affordable, and easy-	
to-deploy solution. Security-Driven	
Networking approach provides tight	
integration of the network to the new	
generation of security.	
The firewall must be a Next Generation	
Firewall/UTP configured on a High-	
Availability setup – a minimum of 2 units	
shall be provided with 3 years subscription	
The solution must be capable of serving	
the entire scope of security gateway	
requirements, including throughput,	
connection rate, and security application	
The Supplier must provide industry	
certifications of the solution. It must	
provide NSS Labs and/or ICSA Labs	
certification	
The solution must have the option to	
deliver real-time compliance assessment	
-	
with major regulations (i.e. PCI-DSS,	
HiPPA, SOX).	
The solution must have the option to	
recommend security best practices	
Must have atleast 15 Gbps Throughput	
Must have atleast 19 Gbps IPS	
Throughput	
Must be able to handle atleast 7 million	
Concurrent TCP Sessions	
Must be able to handle atleast 500,000	
New TCP connections/sec	
Must be able to handle atleast 100,000	
IPSec VPN Tunnels	
Must have atleast 55 Gbps IPSec VPN	
Throughput	
Must have atleast 2 x 100 Gigabit Ehternet	
QSFP28	
Must have atleast 16 x 10 Gigabit Ethernet	
SFP	
Must have atleast 8 x 1 Gigabit Ethernet	
RJ45	
Must have 2 x USB Ports	
 Must have 1 x RJ45 Management Console	
ports	
Must have redundant power supply	
Must include Transceivers 2x SFP SX	
The firewall must support dual IPv4 and	
IPv6 stacks including application control	
and inspection	
Must support the DHCP relay locally	
Must support policy-based routing	
Must support the following NAT	
 1 Support the lonewing little	l .

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	deployment modes for IPv4 and IPv6:		
	Static NAT		
	Dynamic NAT		
	 PAT (Port Address Translation 		
	The firewall should include the following		
	and not as an add-on license or		
	subscription:		
	Intrusion Prevention System (IPS)		
	Advanced Malware Protection		
	Application Control		
	Web and Video Filtering		
	• Antispam		
	The firewall must support the following		
	protocols and applications:		
	• Internet Protocol version 4 (IPv4)		
	• Internet Protocol version 6 (IPv4)		
	• Transmission Control Protocol		
	(TCP)		
	 User Datagram Protocol (UDP) 		
	Internet Control Message Protocol		
	(ICMP)		
	Generic Route Encapsulation (GRE)		
	Domain Name System (DNS)		
	_		
	Protocol (SNMP)		
	Hypertext Transport Protocol (MTTP)		
	(HTTP)		
	• Hypertext Transport Protocol		
	Secure (HTTPS)		
	 File Transfer Protocol (FTP) 		
	Telnet		
	Secure Socket Layer (SSL) and		
	Transport Layer Security (TLS)		
	Simple Mail Transfer Protocol		
	(SMTP)		
	• IMAP		
	• POP3		
	The firewall must support full stack,		
	multi-layer normalization, and stream-		
	based data inspection and detection		
	processes to detect advanced evasion		
	techniques		
	The firewall must provide file filtering		
	support for blocking malicious files		
	The firewall must support both basic DLP		
	filter types and DLP fingerprinting		
	The proposed solution must have an		
	extensible detection framework to quickly		
	integrate proprietary and third-party		
	solutions (API)		
	Must be able to provide a specific category		
	to address HTTP-based technology which		
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	bypasses web filtering, e.g. third-party	
	proxy servers, anonymous surfing, CGI	
	proxy	
	The firewall must include support for the	
	following high availability features:	
	Active – Active	
	Active – Passive	
	Clustering Mode	
	The firewall must support multiple zones	
	can be used to group SD-WAN interfaces	
	for logical scenario, such as overlay and	
	underlay interface	
	The firewall must be able to support	
	logically separated virtual firewall	
	instances, which are isolated from each	
	other in a single appliance. With built-in	
	free virtual contexts	
	The firewall shall be able to limit remote	
	management access from a trusted	
	network or host with a corresponding	
	administrator account	
	The management software must have	
	multi-selection support that performs	
	actions and commits changes to hundreds	
	of elements simultaneously	
	Ş	
	The firewall must support offline updating	
	of content, firmware, or signature	
	The firewall must have USGc6/IPv6	
	certification	
	The firewall must comply with the	
	following:	
	FCC Part 15 Class A	
	• RCM	
	• VCCI	
	• CE	
	• UL/cUL	
	• CB	
3.2	Link Load Balancer	
	Link Load Balancing with 3 years warranty	
	Must have 4 (GE), 1x USB, 2 (10G	
	SFP+)WAN Interface	
	Must have 2 (10G SFP+) LAN Interface	
	The proposed link load balancer must	
	have at least 8Gbps Stateful Firewall	
	-	
	Throughput	
	The proposed link load balancer must	
	have at least 2Gbps VPN Throughput (No	
	Encryption)	
	The proposed link load balancer must	
	have at least 2Gbps VPN Throughput (256-	
	bit AES)	
	The proposed link load balancer must	
	support at least 4000 Number of VPN	
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	Peers	
	The proposed link load balancer must	
	support at least 1500 Maximum Number	
	of AP Supported	
	The proposed link load balancer must	
	have the following features:	
	VPN Hot Failover	
	VPN WAN Smoothing	
	VPN Bandwidth Bonding	
	Central Management	
	Drop-In Mode	
	High Availability	
	Content Filtering (Full)	
	AP Series Management AP & Multiple Configuration	
	• Remote AP & Multiple Config	
	Profiles Management	
	LAN Bypass	
	Remote User Access The state of the st	
	The proposed link load balancer must	
	have the following Advanced QoS	
	Functionality:	
	Bandwidth Usage Monitor A Colon W. ID. Colon W.	
	QoS for VoIP and E-Commerce	
	User Groups Bandwidth Control W. 1 Bl. 1:	
	Web Blocking	
3.3	Hyper-Converged Infrastructure	
i e	Anniiance (HCIA)	
	Appliance (HCIA) Node size must be maximum of 211 per	
	Node size must be maximum of 2U per	
	Node size must be maximum of 2U per node	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB,	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor Must have at least 8 X 32GB 2666MHz	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor Must have at least 8 X 32GB 2666MHz DDR4 RDIMM ECC or equivalent Must have at least 4 X 8TB 7.2K RPM	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor Must have at least 8 X 32GB 2666MHz DDR4 RDIMM ECC or equivalent Must have at least 4 X 8TB 7.2K RPM 3.5in SATA HDD (Enterprise) per node	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor Must have at least 8 X 32GB 2666MHz DDR4 RDIMM ECC or equivalent Must have at least 4 X 8TB 7.2K RPM	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor Must have at least 8 X 32GB 2666MHz DDR4 RDIMM ECC or equivalent Must have at least 4 X 8TB 7.2K RPM 3.5in SATA HDD (Enterprise) per node Must have at least 6GB/S 2x 1900 GB	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor Must have at least 8 X 32GB 2666MHz DDR4 RDIMM ECC or equivalent Must have at least 4 X 8TB 7.2K RPM 3.5in SATA HDD (Enterprise) per node Must have at least 6GB/S 2x 1900 GB SSD 2.5 per node	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor Must have at least 8 X 32GB 2666MHz DDR4 RDIMM ECC or equivalent Must have at least 4 X 8TB 7.2K RPM 3.5in SATA HDD (Enterprise) per node Must have at least 6GB/S 2x 1900 GB SSD 2.5 per node Must have at least six (6) 1000Base-T and	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor Must have at least 8 X 32GB 2666MHz DDR4 RDIMM ECC or equivalent Must have at least 4 X 8TB 7.2K RPM 3.5in SATA HDD (Enterprise) per node Must have at least 6GB/S 2x 1900 GB SSD 2.5 per node Must have at least six (6) 1000Base-T and two (2) 10Gb SFP+ Multimode ports per	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor Must have at least 8 X 32GB 2666MHz DDR4 RDIMM ECC or equivalent Must have at least 4 X 8TB 7.2K RPM 3.5in SATA HDD (Enterprise) per node Must have at least 6GB/S 2x 1900 GB SSD 2.5 per node Must have at least six (6) 1000Base-T and two (2) 10Gb SFP+ Multimode ports per node	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor Must have at least 8 X 32GB 2666MHz DDR4 RDIMM ECC or equivalent Must have at least 4 X 8TB 7.2K RPM 3.5in SATA HDD (Enterprise) per node Must have at least 6GB/S 2x 1900 GB SSD 2.5 per node Must have at least six (6) 1000Base-T and two (2) 10Gb SFP+ Multimode ports per node Must have at least 2 X redundant power	
	Node size must be maximum of 2U per node Number of nodes must be at least (2) nodes Must have at least two (2) 240G OS disks Cores 16, Threads 32, Base Frequency 2.90 GHz with Turbo Boost, Cache 22MB, MAX UPI Links 2 Must have at least 16core/32Threads per processor Must have at least 8 X 32GB 2666MHz DDR4 RDIMM ECC or equivalent Must have at least 4 X 8TB 7.2K RPM 3.5in SATA HDD (Enterprise) per node Must have at least 6GB/S 2x 1900 GB SSD 2.5 per node Must have at least six (6) 1000Base-T and two (2) 10Gb SFP+ Multimode ports per node Must have at least 2 X redundant power supply per node	

 2 x Network Virtualization with 	
Distributed Firewall Technology	
and Drawable Technology per node	
• 2 x Storage Virtualization per node	
• 1 x Virtual Application Firewall for	
the whole cluster	
The HCI must be capable and ready for	
network virtual security (Virtual Firewall,	
Bandwidth Manager, SSL VPN, WAN	
Optimization). The HCIA software is licensed based on the	
number of physical processors	
The HCI solution could start with 2	
servers, and retain scalability by adding	
servers only without influencing the	
production	
The HCI solution must be able to evaluate	
the performance of virtual machines and	
hot-add resources (vCPU and RAM) when	
they are running out of CPU or memory,	
minimizing business downtime	
The HCI solution should have High-	
Availability. In case the host fails, all the	
VMs running on that host can be	
recovered to another clustered host to	
ensure business continuity	
The HCI solution should have the built-in	
back-up and support agent-less	
incremental VM-level back-up. For	
Windows VMs, file-level recovery must be	
supported	
The HCI solution must support snapshot	
consistent group and scheduled	
S 1	
snapshots The HCI solution must have AI-Enhanced	
database performance optimization with	
built-in self-adaptive performance	
optimization engine	
The HCI solution must support host health	
monitoring, when a host is deemed	
unhealthy, it will be put in an unhealthy	
host list and VM placement and HA	
failover will avoid using the unhealthy host	
as a destination. When the host is back to	
normal, it can be taken out of the	
unhealthy host list automatically	
The HCI solution must be Able to	
automatically migrate some of the VMs on	
a node when the CPU& Memory usage of	
the node exceeds a certain threshold to	
alleviate the workload of this node, the	
CPU/memory threshold can be set on the	
management platform	
 management planoini	<u> </u>

The HCI solution must support agent-less	
USB mapping for virtual machine across	
hosts. For a solution with a USB key, no	
client plugin needs to be installed on a	
virtual machine. Additionally, VM	
migration does not affect the existing	
mapped USB resources, to make the	
business adaptive and more flexible	
•	
The HCI solution storage is in distributed	
architecture where more than one storage	
nodes are composed of a Storage Area	
Network (SAN) that can be scaled out (by	
increasing nodes) to expand storage	
capacity and performance	
The HCIA must support access via iSCSI,	
to enable other hosts in the cluster to use	
iSCSI to access the virtual storage, and	
making Server SAN and IP SAN work	
together, and maximize storage utilization	
The HCIA must have a full copy of VM's	
data should be existed on the node where	
the VM is running on to facilitate faster	
read and write	
The HCIA virtual storage must make use	
of SSD as cache tier and spinning disk as	
data tier to ensure performance and cost	
balance. Data is written to SSD first and	
read from SSD in priority to improve	
performance	
The HCIA Data that is frequently accessed	
(also called hot data) can use SSD as a	
persistent storage media, when VM is	
-	
migrated or host is rebooted, the hot data	
must still reside in the SSD for fast	
retrieval	
The HCIA must support 3 data copies with	
3 hosts to tolerate failure of any 2 disks or	
1 host	
The HCIA must Support disk bad sector	
prediction, scanning and repair to	
maximize data security	
The HCIA must support storage capacity	
prediction based on historical usage	
statistics and consumption behavior	
The HCIA must support disk remaining	
lifecycle prediction	
The HCIA natively support deploying	
virtual routers, virtual switches and	
firewalls	
The HCIA must have built-in distributed	
firewall to apply granular access control	
policy between VMs, securing east-west	
traffic (also known as Micro-segmentation)	
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	The HCIA virtual router supports high	
	availability. A failed virtual router can be	
	automatically recovered upon host failure,	
	to ensure high availability of routing	
	service	
	The HCIA network topology can be	
	completed simply by dragging objects and	
	drawing connections via a visualized web-	
	based management panel. Together with	
	more operations	
	The HCIA must have Distributed Firewall	
	The HCIA must have activated virtual	
	firewall that can provide protect against	
	known and zero-day attack. Should be	
	ready with below features:	
	3	
	protection with threat	
	intelligence services to perform	
	automatic scan, give alerts on	
	latest high-threat vulnerabilities	
	and/or one-button click	
	protection	
	b. Weak password scanning for	
	common network services (SSH,	
	FTP, RDP, VNC, Netbios) and	
	database types (MySQL, Oracle,	
	MSSQL) to provide full	
	protection	
	Must supply 2 units of L3 Ethernet Switch	
	with 16*1G/10GBase-X SFP Plus Ports	
	with dual power supply and 1*Slot, 8 units	
	of SFP+ modules	
	Must have 3 years hardware repair and	
	maintenance warranty	
	Must have 3 years software subscription,	
	upgrade license and technical support	
	Network Detection and Response Data	
3.4	Processor	
	Must have atleast 5 Gbps throughput	
	Must have atleast 96 GB memory	
	Must support atleast 10000 EPS	
	* *	
	Must have 128GB SSD system disk +	
	32TB SATA data disk	
	Must have 4 x 10/100/1000 BASE-T	
	Must have redundant power supply	
	Must be atleast 2RU Form Factor	
	Must support different security	
	perspectives and display multiple kinds of	
	slideshow.	
	Must support slideshow of security event	
	situation, including security incident,	
	event level distribution, security incident	
	situation, security incident TOP5, the	
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event with the largest threat surface	
TOP10, event type TOP5, risk	
business/host TOP5 (screenshot proof,	
and official seal of vendor are required).	
,	
Must support slideshow of outbound	
connection, including external risk	
overview, external threat TOP10, external	
threat situation, external region TOP5,	
real-time threat monitoring; Support	
independent switch of international and	
domestic maps (screenshot proof and	
official seal of vendor are required).	
Must support 3D slideshow to display	
network attack situation, including attack	
number, attacked asset group, attack	
source address, attack source IP, attack	
means ranking, attacked server ranking;	
(screenshot proof and official seal of	
vendor are required).	
Must support slideshow to display lateral	
threat situation, including business and	
user access, initiated threat host TOP5,	
risk business TOP5, access trend chart;	
Support different color marking lateral	
attacks, illegal access, suspicious	
behavior, risk access and other behaviors.	
(screenshot proof and official seal of	
vendor are required).	
Must Support the headquarters	
administrator to view the global security	
information, support page jump to each	
branch of the independent management	
page. (screenshot proof and official seal of	
vendor are required).	
Must support for custom branch	
management authority, branch	
administrator has an independent	
management page, can only manage and	
view the branch business and assets	
security information and have a complete	
function display.(screenshot proof and	
official seal of vendor are required).	
Must support the query, editing and	
management of asset information,	
including asset type, geographic location,	
responsible person, audit status, host	
name, operating system, domain name,	
service and port, application,	
manufacturer, device model, vendor serial	
number, source device, etc. (screenshot	
proof and official seal of vendor are	
required)	
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identification and active scanning for	

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	assets, can be correlated with the scanner	
	regularly or immediately scanning assets,	
	support custom scanning IP address,	
	network segment, URL.(screenshot proof	
	and official seal of vendor are required).	
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	Must support weak password detection.	
	The weak password detection technology	
	is based on machine learning	
	(unsupervised self-learning) to extract the	
	characteristics of successful login. It	
	supports custom Web login rules, and can	
	set rules for determining success and	
	failure.(screenshot proof and official seal of	
	vendor are required).	
	The weak password detection supports	
	passive discovery, supports the detection	
	of 62 common protocols such as FTP,	
	IMAP, LDAP, POP3, SMTP, TELNET and	
	WEB, and adopts rule matching and UEBA	
	_	
	learning technology to detect.(screenshot	
	proof and official seal of vendor are	
	required).	
	Must supports real-time traffic	
	identification and vulnerability analysis.	
	Vulnerability analysis types include	
	configuration error vulnerability,	
	OpenSSH vulnerability, OpenLDAP and	
	other operating systems, databases, Web	
	applications, etc. It supports displaying	
	business vulnerability risk distribution,	
	vulnerability type analysis, vulnerability	
	situation, hazard and disposal suggestions	
	on the page, and supports exporting	
	vulnerability perception report.(screenshot	
	V 1 1 1 1	
	proof and official seal of vendor are	
	required).	
	Must support business perspective to	
	display security risks, including attack	
	phase distribution, risk level trend, event	
	description, external attacks, vulnerability	
	risk, behavior portrait, open port, etc.	
	(screenshot proof and official seal of	
	`	
	vendor are required).	
	Must support host perspective display	
	host IP, branch, host group, risk level,	
	security event label, processing status,	
	linkage status; The risk grade includes	
	fallen, high risk, medium risk and low risk	
	Must support security domain perspective	
	to display security risks, including	
	security domain list, security domain	
	score, event type TOP5, IP address, IP type,	
	risk level, critical risk. (screenshot proof	
	and official seal of vendor are required).	
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	Must support external threat analysis,	
	including high risk attack, residual attack,	
	brute force break, successful incident	
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	attack, mail threat, file threat, external	
	risk access	
	Must support lateral threat analysis,	
	including lateral threat overview, lateral	
	attack, unauthorized access, suspicious	
	behavior, risk; The lateral risk overview	
	includes TOP5 hosts that initiate lateral	
	threats, TOP5 hosts that suffer from	
	lateral threats, distribution of lateral	
	threat types, and trend of lateral threats.	
	(screenshot proof and official seal of	
	vendor are required).	
	Must support outbound threat analysis,	
	including outbound threat overview,	
	outbound attack, APT C&C	
	communication, suspicious behavior,	
	covert communication, illegal access,	
	server risk access; The external threat	
	overview includes the outbound threat	
	host type distribution, existing outbound	
	· · · · · · · · · · · · · · · · · · ·	
	threat IP TOP5, outbound target region	
	(abroad) TOP5, outbound threat type	
	distribution, outbound threat trend.	
	(screenshot proof and official seal of	
	vendor are required).	
	Must support threat intelligence	
	correlation analysis, with no less than 1.5	
	millions of built-in threat intelligence;	
	Support to display threat intelligence hit	
	count, hit count today, hit threat	
	intelligence category TOP10, Hit Trend,	
	active threat intelligence TOP20, etc.	
	(screenshot proof and official seal of	
	vendor are required).	
	Must support custom threat intelligence,	
	define domain name, IP, URL, file MD5,	
	deterministic level, threat level, event type,	
	hazard description, disposal	
	recommendation and other information.	
	(screenshot proof and official seal of	
	vendor are required).	
	<u> </u>	
	Must support multi-dimensional fuzzy	
	clustering algorithm is supported to	
	aggregate a large number of external	
	attack logs into a small number of attack	
	events. The aggregation dimension	
	includes attack IP, attack address, attack	
	target and attack method. (screenshot	
	proof and official seal of vendor are	
	required)	
	Must support file threat analysis, can	
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	show the file analysis process, file	
	detection trend, malicious file TOP5;	
	Support the detailed analysis of malicious	
	1 1 2	
	files, including supporting the recording of	
	malicious files infected host, branch, file	
	name, virus name, transmission protocol.	
	Supports exporting file threat analysis	
	results. (screenshot proof and official seal	
	of vendor are required).	
	Must support host threat impact analysis,	
	find out lateral attack, illegal access,	
	suspicious behavior and risk access	
	launched by risk host to internal host.	
	(screenshot proof and official seal of	
	vendor are required).	
	Must support the export of endpoint	
	security risk report, which includes	
	business and host risk summary,	
	business risk and host detail analysis, and	
	provide hazard interpretation and	
	reference solutions; Suitable for daily	
	operation and maintenance personnel	
	dealing with security issues.	
	Must support the export of a complete	
	comprehensive risk report, including	
	platform description, security risk	
	summary, business and host security	
	details analysis, security planning and	
	construction recommendations, etc	
	Must support access to firewall, Secure	
	Web Gateway, EDR, STA and other	
	devices; Support to display the number	
	and status of security component accesses	
	in the page. (screenshot proof and official	
	seal of vendor are required).	
	Must support SOAR strategy of asset type,	
	event type and risk level. correlate	
	components include NGFW, Secure Web	
	· · · · · · · · · · · · · · · · · · ·	
	Gateway and EDR. Where the asset type	
	can choose host, server or IP assets of	
	specified range; The risk level can be	
	selected as compromised, high, medium	
	and low risk. Event types include Botnet,	
	Phishing, Trojan etc., and the number of	
	event types is not less than 20. (screenshot	
	proof and official seal of vendor are	
	required).	
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	Must support response policies including	
	correlated block, access control, browsing	
	risk notification, account lockout, threat	
	scan, forensics. It can identify the security	
	equipment connected to the platform and	
	automatically recommend the response	
	policies (screenshot proof and official seal	
	ponoico (octochonot proof and official scal	

	of vendor are required).	
	Must correlate with EDR components, the	
	platform support automatically set the	
	correlation policies to block the traffic,	
	threat scanning and process killing;	
	Support feedback virus information and	
	malicious domain name communication	
	process information (screenshot proof	
	and official seal of vendor are required). Must correlate with Firewall components,	
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	the platform support automatically set the	
	correlation policies to block the traffic, and	
	set up a new ACL policy	
	Must correlate with Secure Web Gateway	
	components, the platform support	
	automatically set the correlation policies	
	for account lockout and browsing risk notification.	
3.5	Network Detection and Response Data Collector	
	Must have atleast 3Gbps throughput	
	Must have atleast 8Gb memory	
	Must have atleast 1TB SATA	
	Must have 6 x 10/100/1000 BASE-T, 2 x	
	1Gbe SFP, 2 x 10Gbe SFP+ (Default)	
	Must have dual power supply	
	Must be atleast 2RU form factor	
	Must actively send a small number of	
	detection messages, discover potential	
	servers (shadow assets) and learn basic	
	server information, such as: operating	
	system, open ports, etc.	
	Must have message detection engine,	
	which can realize IP fragment	
	reorganization, TCP flow reorganization,	
	application layer protocol identification	
	and analysis, etc.; it has a variety of	
	intrusion attack modes or malicious UR	
	detection modes, which can complete	
	pattern matching and generate events,	
	and can extract URL records and Domain	
	name record.	
	Must support SQL injection, XSS attack,	
	web Trojan, website scanning,	
	WEBSHELL, cross-site request forgery,	
	system command injection, file inclusion	
	attack, directory traversal attack,	
	information leakage attack, web site	
	system vulnerability and other website	
	attack detection	
	Must support sensitive data leakage	
	detection capabilities, customizable	
	sensitive information, and support	

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	information filtering based on file types and sensitive keywords	
a a a a a a	Must support vulnerability attack detection such as Database vulnerability attack, DNS vulnerability attack, FTP vulnerability attack, Mail vulnerability attack, Network Device, Scan vulnerability attack, System vulnerability attack, Telnet vulnerability attack, TFTP vulnerability attack, Web vulnerability attack, etc. Must support Application vulnerability	
\ \ \ &	attack, File vulnerability attack, Scan vulnerability attack, Shellcode vulnerability attack, System vulnerability attack, Web Activex and other host vulnerability attack detection	
	Must support FTP, IMAP, MS Sql, Mysql, Oracle, POP3, RDP, SMTP, SSH, Telnet, and other protocols brute force detection	
s I t	Must support standard ports to run non- standard protocols, and non-standard ports to run standard protocol abnormal traffic detection. Port types include 3389, 53, 80/8080, 21, 69, 443, 25, 110, 143, 22, etc.	
	Must support ICMP, UDP, SYN, DNS and other protocols for abnormal traffic detection, support custom threshold	
1 C C C C C C C C C C C C C C C C C C C	Must support HTTP unknown sites to download executable files, browse registered domain names in the last 30 days, browse malicious dynamic domain names, access random algorithm to generate domain names, brute force attacks, rebound connections, IRC communication and other botnet behavior detection	
	Must supports transmission of security detection logs, including network attack detection logs, vulnerability exploit attack detection logs, botnet detection logs, and business vulnerability discovery logs	
	Must support transmission of access detection logs, including normal access, risk access, and unauthorized access	
1 F r 1	Must support transmission protocol audit log, including https protocol log, http protocol audit log, DNS protocol audit log, mail protocol audit log, SMB protocol audit log, AD domain protocol audit log, WEB login audit log, FTP protocol audit log,	

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	Telnet protocol audit Log, ICMP protocol audit log, LLMNR protocol audit log	
	Must support IP, IP group, service, port, access time, etc. to define access policies, and actively establish targeted business and application access logic rules,	
	including whitelist and blacklist methods Must support built-in URL database, IPS vulnerability feature identification database, application identification database, WEB application protection identification database, botnet identification database, real-time	
	vulnerability analysis identification database, malicious link database, whitelist database Must support traffic capture analysis,	
	users can define the number of captured packets, interface, IP address, port or custom filter expression	
	Must support the built-in simple command line management window of the device, which is convenient for basic operation, maintenance and debugging	
	Must be able to monitor CPU, memory and storage usage real time	
	Must be able to monitor the real-time traffic of the listening interface Must support multiple collectors to be	
	deployed at different locations on the customer's network at the same time and transmit data to the same analysis platform	
3.6	Endpoint Detection and Response	
	The antivirus must include but is not limited to: Protection software for Windows workstations, Linux workstations, Oracle, Active Directory	
	The anti-virus solution should have centralized management, monitoring update software. It should allow for slave servers, tools for distributing both the client agents and signature database updates to other clients, distribute all agents in a single action as well as monitor	
	the health of the agent. The anti-virus solution should have capability to update databases of signatures for malicious programs and	

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attacks. It should use the same	
mechanism to distribute signatures,	
updates, firewall policies and engine	
updates	
The anti-virus solution should provide a	
list of system resources that are	
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continuously monitored indicating	
malware presence e.g. host files, registry	
The anti-virus solution should	
accommodate resident antivirus	
monitoring	
The anti-virus solution should have	
launching of tasks by schedule and/or	
just after loading the operating system	
The anti-virus solution should support	
virtualized environments	
The anti-virus solution should allow for	
simulation of unknown code before	
execution to determine malicious intent	
without user intervention	
The anti-virus solution should have a	
Heuristic analyzer that allows	
identification and blocking of previously	
unknown malware more efficiently	
including zero day outbreaks	
The anti-virus solution should have AI	
capabilities that allows identification and	
blocking of previously unknown malware	
more efficiently including zero day	
, , ,	
outbreaks	
The anti-virus solution should have AI	
capabilities that allows identification and	
blocking of previously unknown malware	
based on malware family classification	
The anti-virus solution should have	
capability of scanning on the user's or	
administrator's request and according to a	
schedule. The primary administrator	
should be able to manage the whole	
solution while local domain administrators	
should manage their groups	
The anti-virus solution should have	
capabilities of checking and disinfection of	
files in archives using the RAR, ARJ, ZIP,	
CAB, LHA, JAR, ICE formats up to 16	
layers	
The anti-virus solution should have cloud-	
based technology that provide ability to	
receive verdicts in online mode about	
applications and executable files running	
applications and executable mes running	

on computer	
The anti-virus solution should have	
protection of HTTP-traffic – scanning of all	
objects entering the user's computer	
through the HTTP/FTP protocol	
The anti-virus solution should have	
capabilities of scanning of all scripts,	
developed in Microsoft Internet Explorer,	
as well as any WSH scripts (JavaScript,	
Visual Basic Script WSH scripts	
(JavaScript, Visual Basic Script etc.),	
launched when the user works on the	
computer, including the Internet	
The anti-virus solution should have	
applications control that prevents	
applications from performing actions that	
may be dangerous for the system	
The anti-virus solution should have	
protection against hacker attacks by using	
a firewall with an intrusion detection and	
prevention system (IDS/IPS) and network	
activity rules. It should also provide deep	
packet inspection of incoming network	
traffic	
The anti-virus solution should control for	
isolation from any connected network	
The anti-virus solution should have	
special task for detecting vulnerabilities,	
with results available in reports. It should	
also allow for completely ad-hoc reports.	
(Filtered reports don't count)	
The anti-virus solution should have	
special task for detecting compliance with	
organization security compliance policies,	
with results available in reports. It should	
also allow for completely ad-hoc reports.	
(Filtered reports don't count)	
The anti-virus solution should provide	
visual representation of	
allowed/unauthorized/suspicious	
communications between endpoint and	
other network and internet devices	
The anti-virus solution should provide	
integrity checks of endpoints to include	
(but not limited to): for Windows	
endpoints include account, access control,	
security audit, history information	
protection, intrusion prevention and	
malicious code prevention. For Linux	
endpoints include: account, access	

	control, security audit, SSH policy	
	detection, intrusion prevention and	
	malicious code prevention.	
	The anti-virus solution should have	
	Several Sources of Intelligence	
	The anti-virus solution should have threat	
	Intelligence services to mitigate and give	
	actionable information of threats detected	
	locally or globally	
	The anti-virus solution should have data	
	feeds to inform the business about risks	
	and implications associated with cyber	
	threats, and defend against attacks even	
	before they are launched. They may	
	include: Malicious Hash feeds,	
	Whitelisting Data Feeds and Botnet C&C	
	URL Feeds	
	The anti-virus solution should provide a	
	=	
	detailed inventory of applications installed	
	on managed workstations e.g. application	
	name, and version	
	The anti-virus solution should have each	
	Data Feed give output of actionable	
	context such as threat names,	
	timestamps, geo-location, resolved IPs	
	addresses of infected web resources, etc	
	The anti-virus solution should have threat	
	intelligence generated in real time	
	The anti-virus solution should have	
	intelligence services which allow detection	
	of malware in all types of traffic, whether	
	web, Email, P2P, Instant Messaging, etc."	
	"The anti-virus solution should have easy	
	integration of actionable context into	
	existing security solutions	
	The anti-virus solution should have	
	capability to conduct intricate searches	
	into threat indicators	
	Advanced Persistent Threat Intelligence	
	The anti-virus solution should have	
	capabilities to mitigate against targeted	
	attacks	
	The anti-virus solution should have	
	capabilities to allow administrators to	
	mitigate infections and attacks across	
	multiple targets with minimal effort from	
	the management console	
	The anti-virus solution should have real-	
	time ransomware protection to detect and	
L	protocular to detect and	I .

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	block encryption of endpoints and shared folders	
	The anti-virus solution should have	
	capabilities to allow administrators to	
	isolate individual or multiple targets from	
	the network (micro-isolation) with minimal	
	effort from the management console	
	The anti-virus solution should integrate	
	with network devices to allow	
	administrators to mitigate infections and	
	attacks across multiple targets with	
	minimal effort from the network device	
	The anti-virus solution should integrate	
	with network devices to contain the	
	propagation of infections and attacks	
	across domains	
	The anti-virus solution should allow for	
	immediate incident response and forensic	
	capabilities	
	The anti-virus solution should have	
	Provision of customizable endpoint	
	compliance reports based on	
	organizational security policies	
	The anti-virus solution should have	
	Identification of notable threats for	
	different states and different locations or	
	countries	
	The anti-virus solution should have	
	proactive alerts about threats coming from	
	botnets that target online users	
	The solution should allow for creation of	
	new client groups not dependent on the	
	active directory and report on the group as	
	well as use it in policy	
3.7	IT Helpdesk System	
	Must be support Incident management	
	capable of the following functions:	
	Incident identification	
	Incident logging	
	Incident categorization	
	Incident assignment Inci	
	Incident prioritization Incident propletion	
	Incident resolutionIncident closure	
	Must be support Problem management	
	capable of the following functions:	
	Problem creation and logging	
	Problem analysis	
	Problem solution	

	Problem closure	
	Must be support Change management	
	capable of the following functions:	
	Change creation and logging	
	Change planning and evaluation	
	Change Approval	
	Coordinating change	
	implementation	
	Change review and closure	
	Change workflows	
	Must be support Asset management	
	capable of the following functions:	
	Build your inventory	
	Hardware asset management	
	Discovery techniques for window	
	Discovery techniques for window	
	Software asset management	
	Track the complete life cycle of asset	
	Loan assets for temporary users	
	Keep tabs on asset metrics	
	Must be support Service catalog	
	functionalities:	
	Service Catalog Configuration	
	Request fulfilment data Leading to the latest terms and the latest terms are the latest terms.	
	Involving stakeholders Degreet fulfilment weetsflows	
	Request fulfilment workflows Must have Configuration management.	
	Must have Configuration management database (CMDB), Purchase management,	
	Contract management, Project	
	management, Enterprise service	
	management	
	3 years subscription for 250 Monitors with	
	2 Users	
	Unified endpoint management and	
3.8	security software	
	Must be a software that helps in managing	
	servers, laptops, desktops, smartphones,	
	and tablets from a central location	
	Must be able to automate desktop	
	management routines like installing	
	patches, distributing software, managing	
	your IT Assets, software licenses, USB	
	device usage, monitoring software usage	
	statistics, taking control of remote	
	desktops, mobile devices, and more.	
	Must be able to integrate with products	

and as an IT Halmdash to halm you perform	
such as an IT Helpdesk to help you perform	
complete operations based on ITIL	
framework.	
Must support features such as advanced	
device restrictions, distributing of licenses	
in KNOX devices and app lock	
Must support patching for over 850	
applications in total, including Windows,	
Mac, Linux, and third-party applications.	
Must have a built-in endpoint security	
features for automatically uninstalling	
prohibited software, blocking executables,	
securing USB devices, managing firewalls,	
and more, all of which are extremely	
important when it comes to network	
security.	
Must have the following general functions:	
Available as on-premise and SaaS version	
Web-Based Access to UI	
Inbuilt Database	
Database backup and recovery	
Role Based Restrictions	
Manage Systems in LAN and WAN	
Automatic Agent Upgrade	
Retry Agent Installation	
Heterogeneous Platform	
Agent rebranding	
Microsoft office and IE settings	
VMware Support	
Email Alerting	
Two Factor Authentication	
Credential Manager	
Remote Agent Installation	
Deployment Policy Management	
Must have the following Desktop	
Management Configurations:	
Configuration management	
Configuration Life Cycle	
Management	
USB/Port Security Management	
Printer Install/Uninstall	
Power Management	
IT Help Desk Software - Servicedesk	
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Plus Integration	
Security Policies Management Drive Management	
Drive Mapping Description Management	
Permission Management 78	

Launch Application Management		
 Local User and Group Management 		
Browser Management		
MS office Management		
Display Management		
Custom Script Execution		
Wi-Fi Management No. 11. 1. Co. 1. Mar. 1. Mar. 1. Co. 1. Mar. 1. Mar		
Firewall and Service Management		
Imaging and Deployment - OS		
Deployer		
MAC OS Support		
Linux Management		
Failover Server		
Must be capable of Software Distribution:		
Install MSI/ EXE/ Script based		
software		
Run pre- and postInstallation		
commands		
Scheduled Software Deployment		
Template -driven Package Creation		
Uninstall Software Applications		
Self Service Portal for Windows		
Must be capable of Patch Management:		
 Supports Microsoft OS and 		
applications		
Supports third party patches like		
Java, Adobe, etc.		
Approve or Deny selective		
applications		
Deployment progress and status		
Customizable reboot and actions		
System Health Policy		
Automated Patch Deployment for		
Patch Task		
Automated Patch Deployment for		
Anti Virus Task		
Scheduled Deployment		
Test group and automatic approval		
of patches		
Decline Patches		
 Decime rateries Disable Automatic Updates 		
Must have Asset Management:		
Hardware and Software		
Prohibit software with auto-		
uninstall policy		
Audit history for prohibited software		
Software metering		
	<u> </u>	

Software License Management	
Notify on Software/Hardware	
changes	
Managing Software Category	
Block exe- Windows	
Must have Remote Control Management:	
One click access to remote desktops	
_	
Get users consent prior to	
connecting	
Watch only mode	
File Transfer	
• Chat	
Multiple concurrent sessions	
Multi-monitor support	
Remote key board and mouse	
Recording remote sessions	
Rebooting during remote session	
Capture Alpha-Blending	
Hide Remote Cursor	
Disable Wallpaper/Aero theme	
Idle session settings	
Performance/Colour quality/FPS	
Blackening remote display, etc	
Shadow Remote User-Windows	
Must have the following Tools and Reports	
functions:	
Wake on LAN Tool custom	
Remote Shutdown/Restart	
System Manager	
Disk clean up, Defrag and Check	
disk	
Active Directory Reports	
• Custom reports	
User Logon reports with login	
history	
Power management reports	
 Configuration reports 	
Patch reports	
USB reports	
Asset Reports	
MDM reports	
Live Chat Support	
Must have OS Deployment (Windows OS)	
Online and offline image creation	
Multicast / Unicast deployment	
Customized deployment template	
Configure post deployment activities	

	T	
	Hardware independent deployment	
	Deploy OS to Remote offices	
	 Automatic Driver updates 	
	 User Profile backup and migration 	
	(available on onpremise version	
	only)	
	SID handling	
	Must have mobile device management:	
	Device Enrollment	
	Supports Android, IOS, Windows 10	
	and 11 laptops nd MAC OS devices	
	App management - install in-house	
	and store apps silently, resrtict	
	blocklisted apps, app uninstallation	
	silently	
	Profile management - configure	
	policies and profiles	
	Content management - remotely	
	share documents to the devices over	
	the air.	
	Remote Troubleshooting	
	Security Management - configure	
	stringent securty policies such as	
	passcode, device lock,lost mode,	
	geo-fencing, geo location	
	Email Management - manage and	
	secure corporate emails	
	Containerization for BYOD devices	
	Kiosk mode	
	 Supports complete wipe or corporate 	
	wipe of the device	
	-	
	Asset Management - device details and installed arms	
	and installed apps	
	3 years subscription for 2500 computers	
	and 5 Users License	
	3 years subscription for 2500 Computers	
	and Single User License	
3.9	IT Operations Management:	
	Applications Management Software	
	Must be able to monitor collect performance	
	metrics based on the APIs recommended by	
	the vendors themselves and not generic	
	network management protocols like SNMP.	
	For example, the MySQL/ Oracle	
	monitoring is based on the approaches	
	recommended by these vendors, i.e. by	
	using SQL queries.	

<u> </u>	
-	Must support server monitoring:
	Windows Server
	Linux Server
	FreeBSD Server
	HP-UX Server
	IBM-AIX Server
	IBM AS400/iSeries
	Windows Cluster Server
	Server Hardware monitoring Stats
	Must support application server monitor:
	Jboss
	• Tomcat
	IBM Websphere
	Oracle Weblogic
	Oracle AS
	• Silverstream
	Microsoft .Net
	Apache Geronimo
	GlassFish
	VMWare vFabric tc Server
	Resin
	• Jetty
	Wildfly
	Must support the following ERP monitors
	SAP
	Oracle E-Business Suite
	Siebel CRM
	Microsoft Dynamics CRM/AX
-	Must support the following DB Monitors
	Oracle
	• MSSQL
	• MySQL
	• IBM DB2
	IBM DB2 for i
	IBM Informix
	• Sybase
	PostgreSQL
	Memcached
	Cassandra
	SQL Anywhere
	MongoDB Dodie
	• Redis
	• Couchbase
	Apache HBase
	SAP HANA
	Hadoop big data store
	Oracle Coherence

	Oracle NoSQL
	SAP MaxDB
2.6	Neo4j
	t support the following Web Server
Mon	itors
•	P
•	Microsoft IIS SW – Connects through
	WMI
•	Microsoft Exchange
•	LDAP
•	DNS
•	FTP/SFTP
•	Nginx
•	Nginx Plus
•	Ceph Storage
	Apache Zookeeper
•	Apache Solr
	Apache Elasticsearch
	HAProxy
	NPS (Radius server)
•	
	response time degradation
	Server availability / outage report
	m N CDII
	Memory usage reports
	Port monitoring
	Non-SNMP devices using WMI &
	Telnet
	JMX resources (JMX 1.0 & JMX 1.2)
	Mail server
	Web server
	Hazelcast
7.7	Microsoft Active Directory
	t support the following Virtualization
	itoring:
	111110110 2011/2011
•	VMware vCenter
•	Microsoft Hyper-V
•	Citrix XenServer
•	Citrix XenApp
	VMware Horizon View
•	Oracle VM
•	NVM
•	RHEV
•	Automated Virtual Machine
	Management
	Virtualization dependency mapping
II.	<u> </u>

	Must support the following Containers	
	Docker	
	Kubernetes	
	OpenShift.1	
	Must support the following Cloud Monitors	
	Amazon AWS (EC2, RDS, EBS, S3,	
	 SNS,Aurora,DynamoDB, ELB, NLB)" 	
	Auto-provisioning of cloud resources	
	Windows Azure	
	Microsoft Azure	
	Azure SQL database Organia Claud Infrastructura	
	Oracle Cloud Infrastructure Oracle Cloud I Platform	
	Google Cloud Platform	
	• Openstack	
	Office 365	
	Must have the following General functions:	
	Auto discovery of resources	
	Application dependency mapping	
	Host OS support (Windows, Linux)	
	 Ability to run as Windows service 	
	 Client personalization 	
	 Custom dashboards & widgets 	
	Credentials manager to manage user	
	credentials globally	
	Agentless Monitoring	
	Deep Monitoring	
	 Unified view of business applications 	
	• REST APIs to integrate with 3rd -	
	party portals	
	Service transaction views	
	Code level monitoring	
	Visualizing performance bottlenecks	
	Response time heat map	
	Transaction tracing	
	Web transaction monitoring	
	Apdex scores for measuring user	
	experience	
	Trace details	
	3 years subscription for 5 Technicians	
	(3000 nodes)	
	TRAINING	
	Conduct Training and providing	
0.10	appropriate certification must be issued to	
3.10	the participants.	
	i. Duration: 5 Days	
	ii. Mode of Delivery: Face to Face	
	Training	
	0.4	

	iii. No. of Trainees: 5 Pax	
4.0	DATA CENTER SYSTEM UPGRADE	
	The supplier shall carry out design,	
	engineering, installation, civil works,	
	mechanical works, electrical works, wiring	
	connections, testing and commissioning of	
	the Data Center System components.	
4.1	Smart Data Center System (1 LOT)	
	4 6 600 170 1 6	
	• 4 units of 600mm IT rack for 42Ux600Wx1400D,120Pcs CAT6	
	cables entry, intelligent lock, RDU-THD	
	• Cable duct 300mm width	
	• Cable duct 600mm width, for 600mm	
	width IT Rack UPS Rack	
	• UPS Rack 600mm, 20kVA UPS (long	
	backup) UPS N+1 Parallel	
	Configuration	
	• 2 In-row Indoor unit DX, 60Hz,	
	intelligent lock, electrical reheat & humidifier, with condenser pump, top	
	piping, with CRAC HMI in the door	
	• 2 Outdoor unit for 25KW50/60Hz,	
	environment temperature:20~40°C	
	Adjustable rail kit	
	• External battery cabinet, 2U	
	MPS switched PDU	
	32A, C13*18+C19*6, 5M length input	
	cable4G Modem for SMS notification	
	Testing & Commissioning	
	• resting & commissioning	
	Fire Suppression System	
	• Point detectors for each IT Rack:	
	Novec1230 suppression for 1.5m3	
	Point detector for UPS Rack: Never 1020 recognizion for 2 0 m2	
	Novec1230 suppression for 3.0m3 Rackmount Kit	
	• Rackmount Kit Data Center Fire Detection, Alarm, and	
4.2	Suppression System	
	Supply and installation of Clean Agent	
	Fire Protection System	
	Programming of Control	
	Panel, Testingand Commissioning	
	3. Product Seminar and transfer of	
	Technology Submission of Operations Manual	
	 Submission of Operations Manual (English) 	
	• Scope of Work Electrical and	
	Mechanical:	
		1

	0 1 1 7 11 1	
	o Supply and Installation of	
	electrical conduits (EMT), boxes,	
	wires, fittings, and anchors and	
	necessary materials.	
	Installation of releasing panel	
	and other field devices	
	Fabrication and installation of	
	FM-200 manifold piping system	
	Fabrication/Installation of FM-	
	200 cylinder rack brackets.	
	Fabrication and installation of	
	pipe brackets and hanger.	
	Rough-in-wirings Supply and	
	installation of fittings 300lbs.	
	o Capacity Supply and	
	installation of BI Pipe schedule	
	40 seamless Painting of pipes,	
	brackets and hangers	
	Installation of FM-200 cylinder	
	and discharge nozzles	
	_	
	Engineering Work: Design	
	drawings as per NFPA Final	
	Testing and Commissioning	
	Product Seminar Orientation	
	and transfer of technology As	
	built drawings	
	 Interfacing of PACU/AC Unit to 	
	Suppression Panel shall be a	
	maximum of 5 metres. Wiring	
	from FSCP to PACU/AC	
4.3	Door Access Control Data Center	
1.0	Door Access System (Biometrics, Face,	
	= :	
	Palm and Password)	
	Display 5-inch Touch Screen	
	• Face Capacity: 6,000	
	• Fingerprint Capacity: 6,000	
	Palm Capacity: 3,000	
	 Log Capacity 200,000 	
	900MHz Dual Core CPU, Memory	
	512MB RAM/8G Flash	
	Communication TCP/IP,	
	RS232/485, Wiegand Output	
	Access Control Interface for 3rd	
	party electric lock, door sensor,	
	exit button, alarm, wired doorbell	
	Anti-pass back Function	
	Standard Access Control Function:	
	Access Levels, Groups, Holidays,	
	Anti- pass back, Tamper alarm	
	Power Supply 12V DC	
	Operating Temperature 16 - 32 °C	
1	• Operating Humidity 10% -90%	
4.4	• Operating Humidity 10% -90% Airconditioning Unit (3 units)	

		<u> </u>
	 Aircon Type: Split Cooling Capacity (HP): 2.5HP Inverter Technology Input Power: Single 230V/60Hz Capable of scheduled transfer duty All cooling equipment shall be provided with the necessary condensate drain 	
5.0	IP TELEPHONY SYSTEM	
	The supplier shall carry out design, engineering, installation, testing and commissioning of the IP Telephony System.	
5.1	IP PBX MAIN SYSTEM	
	 a. Supports up to 2000 users b. Unlimited SIP trunk accounts c. Supports up to 200 concurrent call d. Provides security protection using SRTP, TLS and HTTPS encryption e. Supports up to a 5-level IVR (Interactive Voice Response) f. Built-in call recording server; recordings accessed via web user interface g. Supports Multiple configurable call queues, automatic call distribution (ACD) based on agent skills/availability/ work-load, inqueue announcement h. Built-in Call Detail Records (CDR) for tracking phone usage by line, date, etc. i. Multi-language auto-attendant to efficiently handle incoming calls j. Integrated LDAP and XML phonebooks, flexible dial plan k. Supports any SIP video endpoint that using the H.264, H.263 and H.263+codecs l. Supports voicemail and fax forwarding to email m. Analog Telephone FXS Ports: 2 RJ11 ports (both with lifeline capability in case of power outage) n. PSTN Line FXO Ports: 2 RJ11 ports (both with lifeline capability in case of power outage) o. T1/E1 Interface: 1 RJ45 port p. Network Interfaces: Dual Gigabit ports (switched or routed) with PoE;A 3rd Gigabit port for Hot-Standby Clustering 	
	q. Supports Integrated NAT router Voice- over-Packet Capabilities: LEC with NLP	

- g. Feature Keys: 12 line keys with up to 6 SIP accounts, 5 XML programmable context sensitive softkeys, 5 navigation/menu keys, 11 dedicated function keys for: MESSAGE(with LED indicator), PHONEBOOK, TRANSFER, CONFERENCE, HOLD, HEADSET, MUTE, SEND/REDIAL, SPEAKERPHONE, VOL+, VOL
- h. Voice Codecs: Support for G7.29A/B, G.711µ/a-law, G.726, G.722(wide-band), in-band and out-of-band DTMF(in audio, RFC2833, SIP INFO)
- i. Auxiliary Ports: RJ9 headset jack (allowing EHS with headsets), USB, extension module port
- Telephony Features: Hold, transfer, forward, 5-way conference, call park, call pickup, shared-call appearance (SCA)/bridged-lineappearance downloadable (BLA), phonebook (XML, LDAP, up to 2000 items), call waiting, call log(up to 500 records), XML customization of screen, offhook auto dial, auto answer, click-todial, flexible dial plan, hot desking, personalized music ringtones and music on hold, server redundancy and fail-over
- k. Supports Extension Module:
 Can power up to 4 Extension modules
 which features a 128x384 graphic
 LCD, 20 quick-dial/BLF keys which
 dual- color LED, 2 navigation keys,
 and less than 1.2W power
 consumption per unit.
- Supports QoS: Layer 2 QoS (802.1Q, 802.1P) and Layer 3 (ToS, DiffServ, MPLS) QoS
- m. Security: User and administrator level passwords, MD5 and MD5-sess based authentication, 256-bit AES encrypted configuration file, SRTP, TLS, 802.1x media access control
- n. Power: Universal power adapter included: Input:100-240V; Output: +12V, 1.0A; Integrated Power-over-Ethernet(802.3af)
- o. Max power consumption: 5.4W(without Extension) or 9.2W(with 4 cascaded Extensions)

5.3 IP PHONE

- a. Features and Specifications: 2 lines, 2 SIP accounts, up to 2 call appearances
- b. Graphic Display 132 x 48 backlit graphical display
- c. Feature Keys: 2 line keys with dual-color LED and 2 SIP accounts, 3 XML programmable context sensitive soft keys, 5 (navigation, menu) keys. 13 dedicated function keys for MUTE, HEADSET, TRANSFER, CONFERENCE, SEND and REDIAL, SPEAKERPHONE,
- d. VOLUME, PHONEBOOK, MESSAGE, HOLD, PAGE/INTERCOM, RECORD, HOME
- e. Protocols/Standards: SIP RFC3261, TCP/IP/UDP, RTP/RTCP, HTTP/HTTPS, ARP/RARP, ICMP, DNS (A record, SRV, NAPTR), DHCP, PPPoE, SSH, TFTP, NTP, STUN, SIMPLE, LLDPMED, LDAP, TR- 069, 802.1x, TLS, SRTP
- f. Network Interfaces: Dual switched auto-sensing 10/100 Mbps Ethernet ports, integrated PoE
- g. Voice Codecs: Support for G.711μ/a, G.722 (wide-band), G.723 (pending), G.726-32, G.729 A/B, iLBC (pending), Opus (pending), in- band and out-ofband DTMF (In audio, RFC2833, SIP INFO), VAD, CNG, AEC, PLC, AJB, AGC
- h. Telephony Features: Hold, transfer, forward (unconditional/no-answer/busy), 3- way conferen- cing, call park/pickup, shared-call appearance (SCA) / bridged-line-appea- rance (BLA), Downloadable phone book (XML, LDAP, up to 500 items), call waiting, call history (up to 200 records), off-hook auto dial, auto answer, click-to-dial, flexible dial plan, hot desking, personalized music ringtones, server redundancy & fail-over
- i. Supports Headset Jack: RJ9 headset jack (allowing EHS with Plantronics headsets)
- j. HD (High Definition) handset and speakerphone with support for wideband audio
- k. QoS: Layer 2 QoS (802.1Q, 802.1P) and Layer 3 (ToS, DiffServ, MPLS) QoS
- 1. Supports the following Security: User and administrator level access control,

		Т	
	MD5 and MD5- sess based authentication, 256-bit AES encrypted configuration file, TLS, SRTP, HTTPS, 802.1x media access control m. Automated provisioning options include TR-069 and XML config files		
5.4	TRAINING Conduct Training and providing appropriate certification must be issued to the participants. i. Duration: 5 Days ii. Mode of Delivery: Face to Face Training iii. No. of Trainees: 5 Pax		
6.0	UPS & BACKUP POWER SYSTEM		
	The supplier shall carry out design, engineering, installation, civil works, mechanical works, electrical works, wiring connections, testing and commissioning of the Data Center System components.		
	Supplier should have Certification as Authorized Distributor/Reseller and Service Provider of the brand from the Manufacturer as proof of support that contractor can repair, advise replacement and /or troubleshoot power protection of equipment		
6.1	3000 VA, Double Online Conversion UPS for IDF (10 units)		
	INPUT Nominal Voltage: 220 – 240 VAC; 1-Phase Voltage tolerance : 184 VAC Nominal Frequency: 50/60Hz ± 5Hz Power Factor: > 0.98 Current Distortion: ≤ 7% BYPASS Voltage Tolerance: 200 - 253 Vac Frequency Tolerance: Frequency selected (from ±0.Hz to ±5Hz configurable) Overload Times: 125% (4 Sec); 150% (0.5 Sec) OUTPUT Nominal Power: 3000VA Active Power: 2700W No. of Phases: 1 Nominal Voltage: 220 - 230 - 240 VAC (Selectable) Voltage Distortion: < 3% (linear load) / < 6% (non-linear load) Frequency: 50/60Hz (Selectable)		

	0: 0. 133. 1.50/	
	• Static Stability: 1.5%	
	Dynamic Variation: ≤ 5% in 20 ms	
	Waveform: Sinusoidal	
	• Crest Factor: 3 is to 1	
6.2	1500 VA, Double Online Conversion UPS	
	for IDF (22 units)	
	INPUT	
	Nominal Voltage: 220 – 240 VAC; 1-	
	Phase	
	Voltage tolerance : 184 VAC Namical Program	
	Nominal Frequency: 50/60Hz ± 5Hz Decrease Fraction > 0.08	
	• Power Factor: > 0.98	
	• Current Distortion: ≤ 7%	
	BYPASS Veltage Telegrapes 200 052 Vee	
	Voltage Tolerance: 200 - 253 VacFrequency Tolerance: Frequency	
	selected (from ±0.Hz to ±5Hz	
	configurable)	
	• Overload Times: 125% (4 Sec);	
	150% (0.5 Sec)	
	OUTPUT	
	Nominal Power: 1500VA	
	• Active Power: 1350W	
	• No. of Phases: 1	
	• Nominal Voltage: 220 – 230 – 240	
	VAC (Selectable)	
	• Voltage Distortion: < 3% (linear	
	load) / < 6% (non-linear load)	
	• Frequency: 50/60Hz (Selectable)	
	Static Stability: 1.5%	
	Dynamic Variation: ≤ 5% in 20 ms	
	Waveform: Sinusoidal	
	• Crest Factor: 3 is to 1	
6.3	3 Phase, 220-440v, 60KVA, Silent Type	
0.0	Generator	
	Standard Accessories:	
	Heavy-duty steel skid type base	
	frame (fuel tank)	
	Unit mounted tropical capacity	
	radiator with engine driven blower	
	fan	
	Electric starting systems complete	
	with batteries and battery	
	mounting frame and battery cables	
	Lubricating engine oil and filters	
	Muffler	
	Battery charging alternator engine	
	driven	
	Battery charger with radiator water	
	coolant	
	Complete set of operation and	
	instruction manual of engine,	
	alternator and control panel	
	and the party party	

6.4	Automatic Transfer Switch (ATS) 150amps, 230Volts, 3phase, 60Hz,	
	Breaker Type	
	ENCLOSURE-Nema-1, Gray/Beige	
	finished, wall mounted with Pilot lights	
	Green-Normal/Red-Emergency	
	CONTROLTYPE: Manually & Electrically	
	operated w/ Mechanical Interlock,	
	Motorized by Unigear	
	Must support Time Delay on transfer & re-transfer	
	Must have Selector switch auto-off-manual	
	Must have NR-Normal relay, ER- Emergency relay	
6.5	200 LITERS FUEL DAY TANK (FDT)	
	FDT should be fabricated using M.S. Plate 2.5 mm thickness	
	Sight Glass with angle valve & protector	
	Drain line should be provided at the lowest	
	portion of tank	
	Tank should have 2 pairs of standing	
	support made of channel bar	
	Initial supply of 200L of fuel	
	TRAINING	
	appropriate certification must be issued to	
6.6	the participants.	
	iv. Duration: 5 Days	
	v. Mode of Delivery: Face to Face	
	Training	
	vi. No. of Trainees: 5 Pax	
7.0	IP-BASED PUBLIC ADDRESS SYSTEM	
	The prospective bidder shall supply,	
	install, test, connect and commission a	
	high quality fast acting electronic Voice	
	Evacuation, Background Music and Public	
	Address System. The system shall be	
	capable of providing both general purpose	
	and emergency broadcasts.	
	The main equipment and accessories must	
	be one brand	
	The system shall be made up of a Multiple	
	System frame (Compact all Input & Output	
	Matrix), Surveillance (for the output	
	matrix, amplifier and speaker line	
	surveillance), Power Amplifier/s.,	
	Microphone/s, Voice Announcement	
	Board/s, Surveillance Board/s, Digital	

	Announcer/s and all other equipment as	
	necessary to ensure that the intent of	
	these technical specifications and the	
	plans are met and complied with. All	
	equipment used shall be of sufficient	
	capacity and rating to ensure that all	
	paging and priority emergency	
	announcements shall reach the entire	
	building	
	TCP/IP Network based can do centralized	
	& Decentralized system & has Advanced	
	ambient noise control (ANC) Q4 & Master-	
	less system provides high security if one	
	lines fails (Q4) & Both input & output DSP	
	, - ,	
	capability	
	The system shall provide for an adequate	
	number of speaker zones and power	
	amplifier rating to ensure proper operation	
	as required by the design	
	For future expansion, the supply of	
	additional Power Amplifiers shall provide	
	additional speaker zones and power	
	capacity	
	1 0	
	Emergency broadcasts and all call paging	
	can be made even while the local	
	attenuator is turned off or turned down.	
	For this man and a three (2) or form (4) reside	
	For this purpose, a three (3) or four (4) wire	
	speaker line control type of wiring shall be	
	, , , , , , , , , , , , , , , , ,	
7.1	speaker line control type of wiring shall be	
7.1	speaker line control type of wiring shall be installed	
	speaker line control type of wiring shall be installed SYSTEM COMPONENTS System Frame (6 units)	
	speaker line control type of wiring shall be installed SYSTEM COMPONENTS System Frame (6 units) The System frame shall be modular design	
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	system	
	The Maximum of 40 units of System frame shall have the provision to accept up to	
	440 Control Inputs from the Fire Detection	
	System, 320 remote microphone, 640	
	Output Zones & 160 inputs broadcast	
	simultaneously	
7.1.1.1	Audio Input	
	The Audio Input shall be designed to be	
	used in conjunction with the System frame, and comes with control input	
	terminals, low-cut and high-cut filters,	
	and gain controls. Frequency Response	
	shall be 50 – 20k Hz	
7.1.1.2	Remote Microphone (2 units)	
	The Remote Microphone Input shall be	
	designed to be used with the Remote	
	microphone. At the back of the System frame input for Remote Microphones used	
	in the system	
7.1.2	Power Amplifier (6 units)	
	It is module type w/ 1 channel of class D	
	digital power amplifier with contribute to	
	energy-saving and light weight design. Built in top priority is automatically	
	assigned to emergency broadcasts at all	
	times. For general announcements made	
	using inputs 1 to 3, BGM is automatically	
	muted during the announcement.	
	Broadcast priorities can be set for each input.	
	In addition to the standard chimes, a	
	custom chime tone from the Voice	
	Announcement Board can be combined	
	with the announcements. Three different power output: 150W,	
	300W, 500W	
	Power Amplifier, 150W / 300W / 500W	
	The amplifier shall be capable of operation	
	from 20 – 40V DC. The amplifier shall	
	come with channel power indicator. Frequency response shall be 40 – 16kHz.	
	The amplifier shall be operating within a	
	temperature range from -5°C to +45°C.	
	The front panels finish and material shall	
	be surface treated steel plate, black in	
	color, 30% gloss paint. Output Voltage Selectable: 50V,70V & 100V	
7.1.3	Remote microphone extension (14	
1.1.3	units)	

	One (1) System Remote Microphone shall be installed within the Control Console. The system shall also be capable of accommodating up to eight (8) Remote Microphones & One Fireman's Mic per frame to be located as indicated in the plans	
	At each System Remote Microphone, the following are the minimum actions that can be done:	
	a. Announcements into individual speaker zonesb. Announcements into groups of speaker zones	
	All Call Announcements Each System Remote Microphone shall be capable of being provided with as many as 105 programmable buttons for a one-	
	touch initiation of programmed message broadcasts over identified programmed speaker zones Each System Remote Microphone shall be	
	with a button that allows the user to select or deselect the use of pre- or post- announcement chime from a selection of at least four chime tones	
7.1.4	Fireman's Microphone (1 unit)	
	Audio Output 0dB*, transformer-balanced, Frequency Response 200 – 15kHz Microphone Unidirectional dynamic microphone with talk key, AGC, (ON/OFF selectable), microphone element failure, detectable by using a built-in small oscillator, Connection Cable Shielded CPEV cable or Shielded Category 5 twisted pair cable (CAT5-STP) No. of Connectable Max. 5 units Expansion, Monitor Speaker Built inside, Operation Emergency key, Function keys, CPU switch, Reset switch, Indicator Status indicators, Power indicator, Failure indicator, CPU indicator, Selection indicators, Microphone indicator, Broadcast status indicator	
7.1.5	Desktop Paging Microphone with amplifier control unit	
	Can be installed on a desk or wall with the supplied mounting bracket a chime selected from 4-tone chime, 2-tone chime, and single-tone chime can be sounded by pressing the talk switch of the microphone with remote switch before	

	making the microphone announcement	
	Remote output (make contact output, contact capacity: 30 V DC, under 0.5 A) permits control of equipment having control input terminals interlocked with the talk switch on the paging microphone with remote switch	
7.1.6	CD Player / BGM Player (1 unit)	
	CD Player is a 1U 19 inch rack size all-inone player that is capable of playing various audio source, such as CD, CD-R, CD R/W, USB, SD/MMC Card and FM Radio. In CD mode, CD, USB or SD/MMC Card can be selected as an audio source, while Tuner mode plays FM Radio. The FM radio tuner is able to store up to 30 channels in pre-set memory. Sleep function of up to 90min is available in Tuner mode. The 3 stereo output terminals (Tuner Out, Priority Out, CD Out) of this player offer flexibility in installations	
7.1.7	Voice Announcement Boards (built in)	
	Voice Announcement Boards shall be provided to allow simultaneous broadcast of at least two (2) pre recorded emergency messages from the Digital Announcer. The Voice Announcement Board allows playback of up to eight (8) prerecorded	
	messages per card Recorded programs can be externally activated by either selecting the message selector key of the microphone or by sending the required signals to the Control I/O connector	
7.1.8	Digital Announcer	
	The Digital Announcer shall have LCD-displayed operation guides and handy selection of dial to facilitate recording and playback. The Digital Announcer shall be capable of having up to two (2) memory cards.	
	The Digital Announcer shall permit selection of at least eight (8) levels of recording sound quality to best suit a given situation.	
	The Digital Announcer shall allow recorded sentences to be combined and played back as a program. Up to 256 programs can be played back in the system from the Digital Announcer.	

7.1.9	Digital Ambient Noise Controller &	
	Sensing Microphone The Digital Ambient Noise Controller is	
	the easy, automatic solution to the	
	problem of keeping BGM and	
	announcements audible and	
	understandable when the ambient noise	
	levels at an airport check-in counter or	
	boarding gate, are higher because a large	
	number of people are present. Furthermore, this controller also works to	
	keep music and information audio from	
	reaching levels that are irritating to	
	customers and staff when the	
	surrounding ambient noise levels are not	
	so high	
7.1.10	Line Supervisory Unit (7 units)	
	Line Supervisory is highly reliable and efficient 10 channels line supervisory for	
	measuring or monitoring the impedance	
	of each speaker line. The status each of	
	speaker line in normal, open or short	
	condition is easily identified by the LED	
	indicators	
	10 channels input from amplifier, 10	
	channels output to speaker line	
	10 normal, 10 open, 10 short LED Indicator & 20ohms -20kohms	
	measurement range	
	10 channels attenuator bypass control	
	NO and NC connector, 2x16 dot matrix	
	LCD display	
7.1.11	Monitor Panel (3 units)	
	A major feature of the Monitor Panel is	
	that there is a 12 segment LED meter for	
	EACH input. The meters are active at all times so that all levels can be	
	SIMULTANEOUSLY monitored. The	
	meters are calibrated for 0.3W to 1,200W	
	for 8 ohm speaker circuits and -30dB to	
	+6dB *(ref 0.775V) for line level circuits.	
	Each individual input channel can also	
	be aurally monitored through a high	
	quality internal speaker or headphone jack. A front panel selector switch is used	
	to select the channel to be monitored and	
	an output level control adjusts the	
	listening volume. The monitor circuit	
	provides up to 3 watts output to the	
	internal speaker	
7.1.12	Control Panel (9 units)	1

	Q function from and Q values controls (se	
	8 function keys and 8 volume controls ($-\infty$ to 0 dB), Up to 2 units can be connected	
	to a single Frame, And a maximum of 80	
	units can be configured per system,	
	[Volume Controls] allow to adjust volume	
	level of the frames audio input or audio	
	output (assignable)	
	• [Function Keys] are used for public	
	address operation such as the activation	
	of general broadcast. *Emergency	
	broadcasting cannot be performed with	
	these keys	
7.1.13	Fault Indicator Panel	
	There shall be a Fault Indicator Panel	
	located in the Control Console to	
	annunciate the existence of Faults in the	
	system via an audible and visual signal.	
	In addition to the general indication of the	
	existence of a fault, there shall be a visual	
	signal to identify the fault/s as being	
	from which particular element group (e. g. amplifier failure, speaker line failure) and	
	another visual signal to identify it as	
	being from which zones (e. g. amplifier	
	and speaker lines). All annunciated	
	signals on the Fault Indicator Panel shall	
	be relayed to and be indicated on the	
	Building Management System.	
	Acknowledgment of the fault by pressing	
	the appropriate button shall silence the	
	audible alarm. However, the visual Fault	
	light shall stay on until the fault has been	
	rectified. When the fault has been	
	rectified, pressing the Reset button will turn off the visual Fault light. (If the fault	
	has not yet been rectified, pressing the	
	Reset button does not cause the visual	
	Fault light to extinguish	
	All system faults will be stored in the	
	System Manager so that it can be	
	downloaded to a PC when servicing is	
	required. Up to 10,000 events & 1,000	
	Faults can be stored at one time	
7.1.14	Ceiling Mounted Speakers (229 units)	
	The ceiling mounted speaker shall be an	
	integrated with a resin panel and speaker	
	frame, ceiling mount speakers with a	
	metal grille attached flush mounted with	
	safe and secure spring clamp mechanism	
	for easy speaker mounting to the ceiling.	
	The input impedance can be easily	
	changed by changing the tap position of	

	the transformer.	
	The speaker component shall be a 5" (12cm) cone type dynamic full range speaker. Power handling shall be 6W with a frequency response from 100 – 18k Hz and sensitivity of 90 dB SPL at 1 W input measured at a distance of 1 m.	
	The line transformer shall accept 100 V and 70.7 V inputs with taps for 100 V lines 6 W (1.7k ohms), 3 W (3.3k ohms), 1.5 W (3.3k ohms), 1 W (10k ohms) and for 70 V line 3 W (1.7k ohms), 1.5 W (3.3k ohms), .5 W (10k ohms).	
	The material and finish of the cover shall be Polyropylene resin, off-white in color to resist long term exposure to ultraviolet light. The speaker shall include a protective surface – PP resin, SECC punching net (treated steel plate net), off white paint to prevent damage.	
	Weight of the assembly shall be 470g.	
	Dimensions (Diameter x Height) 168 x 77 (D) mm	
7.1.15	Horn Speaker ,weather proof (3 units)	
	The paging horn speaker shall be a double re-entrant design suitable for paging and tone signaling distribution. The speaker component shall be a compression driver with a phenolic diaphragm to prevent deformation from heat and moisture. Power handling shall be 30 W. Impedance of non-transformer versions shall be 8 ohms.	
	The paging speaker shall include a matching transformer for connection to 100 V and 70.7 V speaker lines. Transformer wattage taps shall include 70.7 V: 15 W (330 ohms), 7.5 W (670 ohms), 5 W (1k ohms), 2.5 W (2k ohms),; 100 V line: 15 W (670 ohms), 10 W (1k ohms), 5 W (2k ohms). Sound pressure level measured at one m with one W of power applied from 500 to 2.5k Hz shall be 112 dB SPL. Frequency response shall	

	reference at 2k Hz shall be 55° H x 70° V.	
	When used as a microphone, sensitivity	
	referenced to 1k Hz, where 0 dB = 1	
	mW/10 dynes / cm2 shall be -22 dB	
	The paging horn shall comply with the	
	IEC IP-65 standard for dust and moisture	
	resistance and operate within a	
	temperature range from -4° F to 131° F (-	
	20° C to +55° C). The material / finish	
	shall be horn flare: aluminum, off-white,	
	powder coating, reflector horn and rear	
	cover: ABS resin, off-white. All mounting	
	hardware, including screws and bolts,	
	shall be stainless steel. The paging horn	
	shall include an integral speaker cable,	
	insulated polyvinyl chloride type, with	
	strain-relief	
	Dimensions (W x H x D) (222 x 179 x 234	
	mm). Weight shall be 1.3 kgs	
7.1.16	Volume Control	
	The volume control shall be flush-	
	mounted and uses a transformer which	
	allows connection of a wide range of loads	
	(Selection 6W,30W,60W &120W). Volume	
	can be adjusted in five (5) steps (0dB, -	
	6dB, -12dB, -18dB, OFF). The volume	
	control features shall be push-in	
	terminals, each of which accepts two	
	conductors for easy bridging. The	
	material/finish shall be ABS resin, milk	
	white in color for knob, panel, and plate.	
	The case shall be ABS resin, black in	
	color	
7.1.17	Wiring	
	Wiring shall be as per manufacturer's	
	recommendation	
	TRAINING	
	Conduct Training and providing	
	appropriate certification must be issued	
	to the participants.	
7.2	i. Duration: 5 Days	
	ii. Mode of Delivery: Face to Face	
	Training	
	iii. No. of Trainees: 5 Pax	
	ONE YEAR LOCAL TECHNICAL	
8.0	SUPPORT	
	a. Provide 24 x 7 email, phone,	
	remote and on-site technical	
		I
	support	
	support b. With Service Level Agreement	

on-

- c. site support services provided to customers for supported systems.
- d. Ticket status and summary reports
- e. Annual technical assessment and review
- f. On-site support (within Metro Manila) Severity Level Classification

Service Level Agreement

- a. Severity Level 1
 - Stopping of programs affecting production data, rendering the system unusable,
 - Complete loss of service
 - Severity 1 issues have the following characteristics:
 - data corruption;
 - a critical documented function is not available;
 - system hangs indefinitely,
 - causing unacceptable or indefinite delays for resources or response;
 - system crashes, and crashes repeatedly after restart attempts
 - software-related issue that stops all monitoring,
 - alerting, ticketing and reporting functions resulting in a loss of business productivity
 - Response Time: Within 4 hours
- b. Severity Level 2
 - Severe loss of service,
 - Important features are unavailable with no acceptable workaround, but operations can continue in restricted fashion.
 - Service interruptions to some, but not all software modules.
 - Time sensitive issue reported by Customer, which may adversely affect operational, billing, monitoring and productivity

- Response Time: Within 8 hours
- c. Severity Level 3
 - Minor loss of service Impact is inconvenience, which may require workaround to restore functionality
 - For development environments, where the situation is causing your project to no longer continue or migrate into production
 - Response Time: Within 20 hours
- d. Severity Level 4
 - Request information, an enhancement, or documentation on software, but no impact on operation of software.
 - Recommendation for a future enhancement, reporting of documentation error with low- to-no impact in business. No loss of service.
 - Response Time: Within 24

TERMS OF REFERENCE

NAME OF PROJECT : Supply, Delivery, Installation, Testing, Training

and Maintenance of Department of Education Central Office Network Rehabilitation Project

2022

LOCATION : DepEd Central Office

RATIONALE

The Department of Education Central Office has established the; (1) network infrastructure facilities that caters local network operations and internet connectivity, (2) Analog PABX for voice communication requirements. For several years, said facilities has continuously advanced the agency's information processing capability. However, DepEd Central office has experienced slow to intermittent local and internet connectivity. With the help of Philippine Association of Government Electronics Engineers (PAGE), TID-ICTS of DepEd Central office conducted an ICT Infostructure Assessment and found out that there is a

need to upgrade the existing infrastructure since it can no longer provide to the current data transmission requirements, network security, voice and data integration requirements and overall network operation of the agency to effectively and efficiently monitor DepEd's Computerization Program (DCP) implementation.

To respond to this, DEPED CENTRAL OFFICE has embarked on the acquisition of upgraded network infrastructure and communications facility. The project is categorized into eight (8) different items.

- 1. FIBER OPTIC AND COPPER NETWORK STRUCTURED CABLING
- 2. NETWORK ACTIVE COMPONENTS
- 3. NETWORK AND GUEST MANAGEMENT SYSTEM
- 4. SECURITY MONITORING SYSTEM
- 5. DATA CENTER UPGRADING
- 6. IP TELEPHONY SYSTEM
- 7. UPS & BACKUP POWER SYSTEM
- 8. IP-BASED PUBLIC ADDRESS SYSTEM

OBJECTIVES

The overall objective of the project is to upgrade network infrastructure and communication facilities to be able provide a better user experience when accessing local area network and internet connectivity as well as utilizing communications facilities. The following specific objectives are the outcomes of the Technology Infrastructure Division's assessment:

- 1. Implementing a Fiber Optic Cable Network backbone from the following DepEd Central Office buildings to Data Center located in Mabini building and Category 6 copper horizontal distribution will provide a high-speed wide area network.
 - a. Bonifacio building c. Alonzo building
- e. Dorm D g. Amphitheater

f. Dorm E

- b. Rizal building
- d. Aguinaldo building
- 2. Provide active network devices that are compatible with new fiber and copper horizontal
- 3. Utilize a cutting-edge Network and Guest Administration System to provide efficient network administration.
- 4. Using a 24x7 Security Monitoring System, provide a secure network infrastructure.
- 5. Upgrade Mabini Data Center by supplying cutting-edge SMART Data Center Cabinet Systems.
- 6. Provide an IP-based public address system that can be integrated with an IP telephony system.
- 7. Provide an emergency backup generator and Uninterruptible Power Supplies to eliminate data center power interruptions.
- 8. Provide capacity building to DepEd Central Office TID-ICTS technical personnel.

I. SCOPE OF WORK AND ACTIVITIES

1. The prospective bidder shall furnish all equipment, labor, materials, tools and equipment, and perform all operations necessary to complete the supply, delivery, installation, testing and commissioning of Fiber Optic Backbone Cabling, Copper Structured Cabling, Network Active Components, Network and Guest Management System, Security Monitoring System, Data Center Upgrading, Uninterrupted Power Supplies, IP Telephony, and IP-Based Public Address System of DepEd Central Office.

2. The prospective bidder shall provide warranty service within the warranty period. Provision of upgrades and patches to be installed must be free of charge during the warranty period. The Prospective bidder shall be responsible for all the cost related to the warranty period for hardware products.

3. Permits and Products Requirement

- a) The contractor shall be responsible for all required permits required for the project.
- b) For IT equipment, the proposed brand and product parts must be certified by the brand and product manufacturer as being readily available and serviceable for at least five (5) years after delivery and acceptance of goods.
- c) A twenty-five (25) year system warranty certificate shall be issued by the Cabling System Manufacturer after audit by a technical engineer from the Cabling System Manufacturer for the structured cabling system installed.
- d) All items that will be offered and delivered for the project must be brandnew, and the model (if applicable) must be current and not in "end of life" as reflected in the current product line found in the manufacturer's official website, official product brochure, or similar literature, as well as in the Manufacturers' Certificate issued for this purpose.

4. Fiber Optic and Copper Network Structured Cabling:

- a. Conduct of site survey and provisions of appropriate site specifications for the supplied materials.
- b. Submission of Proposed Detailed Plan/Design and Specifications for Fiber Optic Backbone Cabling and Copper Structured Cabling for Data, IP Telephony, Biometrics Devices and IP-Based Public Address.
- c. Submission of Project Management Plan
- d. Supply of labor, delivery and installation of various fiber, cables and components.
- e. Provision of the in-house wiring, including the Telco lines, from the cable entrance to the network rack where the active components are located.
- f. Supply, delivery, pulling and installation of Category 6 UTP cable, Fiber optic cable, information outlet, metal support for Cable Gutter, PVC conduits and other consumables.
- g. End to end Tagging and Labelling
- h. Conduct Testing and Commissioning
- i. Submission of Statement of Account (SOA) for the project.
- j. Provision of Technical documentation
- k. Conduct Training

5. Network Active Components, Network and Guest Management System, and Security Monitoring System

- a. Conduct of site survey and provisions of appropriate site specifications for the supplied materials.
- b. Submission of Proposed Detailed Design, Configuration and Specifications of Network Active Components, Network and Guest Management System, and Security Monitoring System
- c. Submission of Project Management Plan
- d. Provision of Technical documentation for equipment and Software.

- e. Supply and delivery of active components network and guest management system, and security monitoring system
- f. Supply of labor, installation and configuration of equipment and software.
- g. Conduct Testing and Commissioning
- h. Submission of Statement of Account (SOA) for the project.
- i. Conduct Training

6. Data Center Upgrading

- a. Conduct of site survey and provisions of appropriate site specifications for the supplied materials.
- b. Submission of Project Management Plan
- c. Supply of labor, delivery, and installation of Smart Data Cabinet System.
- d. Supply, delivery, installation, set-up and commissioning of the following equipment and materials:
 - Smart Cabinet System
 - Required Cables tray and other materials/accessories
 - Fiber Switch
 - Electrical Circuit Components which include but not limited to the following:
 - Circuit Breakers
 - o Transfer Switch
 - o Power Outlets
 - o PVC conduits
 - Power Outlets for Server/ Computers, Air Conditioner, Emergency Lights
 - o Other electrical components needed for the renovation.
 - Air Conditioning Unit
 - Fire Alarm System and access management equipment, components, and accessories
 - Rehabilitation of existing fire suppression system
- e. Carpentry/Masonry works:
 - Replacement of glass windows with finish concrete
 - Replacement of glass door with Steel Door
 - Finishing and paint works
- f. Conduct Testing and Commissioning
- g. Submission of Statement of Account (SOA) for the project.
- h. Provision of Technical documentation
- i. Conduct Training

7. IP Telephony System

- a. Conduct of site survey and provisions of appropriate site specifications for the supplied materials.
- b. Submission of Project Management Plan
- c. Provision of Technical documentation
- d. Supply, delivery, installation, set-up, integration of the following equipment and materials of IP Telephone System.
- e. Conduct Testing and Commissioning
- f. Submission of Statement of Account (SOA) for the project.
- g. Conduct Training

8. IP-Based Public Address System

a. Conduct of site survey and provisions of appropriate site specifications for the supplied materials.

- b. Submission of Project Management Plan
- c. Provision of Technical documentation
- d. Submission of the Bill of Materials for the project.
- e. Supply, delivery, installation, set-up, integration of the following equipment and materials of IP-based Public Address System and IP Telephony.
- f. Conduct Testing and Commissioning
- g. Submission of Statement of Account (SOA) for the project.
- h. Conduct Training

9. Pre-installation

- a. The winning bidder and the end user must schedule a kickoff meeting within three (3) working days upon receipt of Notice to Proceed.
- b. Submit the following within seven (7) working days after the kickoff meeting:
 - i. Work Plan
 - ii. Project Timeline
 - iii. Engineering Design
 - iv. Project Management Plan
 - v. List of Manpower
 - vi. Other related documents

10. Installation

a. Supply, deliver and install the required components as specified in the Terms of Reference.

11. Post-Installation

- a. Restore damages to property caused by excavation, installation, maintenance and/or removal of cabling equipment and other procedures conducted by the prospective bidder to accomplish the project.
- b. Conduct free training for IT personnel of DepEd Central Office on the basic maintenance and operational requirements of structured cabling and the equipment.
- c. Provide at least one (1) copy of the technical manual/documentation (English) in printed hard copy and electronic (soft copy) formats. The documents include Cabling and equipment installation, operation, configuration and testing.
- d. Render support services to DepEd Central Office within the warranty period.
- e. Technical support will be provided through phone calls or email within regular working hours from Monday to Friday, 8:00AM to 5:00PM
- f. If the supplied equipment is found defective and need to be pulled-out, the prospective bidder shall provide replacement with the same or higher specifications.
- g. Rectify and or/replace any part that fail to pass any test/inspection or make alteration necessary to meet the specification.
- h. Responsible and accountable for any damage caused solely by the Prospective bidder or its agent to the DepEd Central Office Building as a direct result of the installation maintenance, and removal of any cabling components and devices.

II. DUTIES AND RESPONSIBILITIES OF DEPED CENTRAL OFFICE

1. Assist prospective bidders during the conduct of site Survey.

- 2. The end user will review and approve the work plan submitted by Prospective bidder within seven (7) working days.
- 3. Grant the Prospective bidder authorized representative access to its premises and facilities located therein to perform its obligations, provided that such representative shall be accompanied by the duly assigned DepEd Central Office personnel.
- 4. Reject any unit or any part thereof that fail to pass any test and/or inspection or do not conform to specifications.
- 5. Pay the Prospective bidder in accordance with condition set in the Payment Scheme.
- 6. Issue a Certification of Inspection and Acceptance upon determination by the DepEd Inspectorate Team that the delivered and installed equipment and components are usable and in good working condition.

III. DELIVERY AND INSPECTION

- 1. The winning bidder shall complete the supply, delivery, installation, training, and maintenance of Department of Education Central Office network rehabilitation project within **100 calendar days** from the date of acceptance of Notice to Proceed.
- 2. The completion schedule provided shall be considered extended under the following:
 - a. Delays caused by force majeure events.
 - b. Delays caused by special cases and events beyond the control of the contractor, subject for evaluation and approval by DepEd Central Office.
 - c. In all cases, the period or number of days of extension shall be agreed upon with the DepEd Central Office in writing.
 - d. Claims for time extension of the contract period due to force majeure shall be subject to approval by the DepEd Central Office.
- 3. Force majeure includes events such as Earthquake, Flood, Typhoon, Cyclone, Revolution, War and other cataclysmic phenomena of nature and misfortune which are beyond human prudence and foresight.
- 4. All goods and/or items shall be delivered to the DepEd Central Office and are subject to visual/physical inspection by the DepEd Inspectorate Team based on the awarded specification.
- 5. Goods and/or items shall be rejected if not conformance to the technical specifications.
- 6. Any delays cause by the winning bidder shall be properly documented, communicated, and escalated to the DepEd-TID for merit and consideration.

IV. INSTALLATION

- 1. The contractor shall supply, deliver, and install Department of Education Central Office network rehabilitation project within or above the technical requirements as stated in the detailed technical specifications.
- 2. The contractor shall provide the required safety and security tools and the same in carrying the work such as safety shoes, safety hat, safety gaggles, safety harness and others.
- 3. The contractor shall communicate, coordinate and shall comply DepEd ICTS TID internal work permitting procedures and requirements prior to the commencement of the actual work.
- 4. DepEd Central Office shall not be responsible for lack of materials and equipment to be supplied by the winning Bidder. It shall be the sole responsibility of the winning bidder to assess and re-assess on the Materials to be supplied to the Agency and shall be DepEd Central Office's property.

5. Unused and excess equipment and materials shall be turned over to DepEd - TID - ICTS at the end of the installation and commissioning period.

V. COMMISSIONING, TESTING AND ACCEPTANCE

- 1. The winning bidder must conduct commissioning and testing ensure the maximum level of reliability by reviewing and testing the physical design of the network infrastructure as a whole.
- 2. The winning bidder may request for approval of schedule for joint commissioning and testing from ICTS -TID and DepEd Inspectorate team at least 7 days after all active components are power up and functional.
- 3. The joint testing scope will include the quality and functionality of the installation and/or equipment and the workmanship.
 - a. Fiber Splicing and Termination Acceptance Test (Annex E)
 - b. Cat6 Cabling Acceptance Test (Annex F)
 - c. Switch Stress and Functionality Test. (Annex G)
- 4. Any defect(s) observed on the commissioning and testing shall be properly documented. All defect(s) shall be rectified by the contractor within five (5) days and subject for another specific joint acceptance test provided that the activities are free of cost to DepEd.
- 5. Upon completion of Commissioning and Testing, DepEd shall issue a certificate of acceptance subject for payment
- 6. Nothing in this clause shall in any way relieve the winning bidder from any warranty or other obligations under this Contract.

VI. DOCUMENTATION

- 1. As-built drawing duly signed and sealed by the Professional Electrical Engineer, Professional Electronics Engineer, Civil Engineer, and Mechanical Engineer
- 2. 25 years cabling certification from the manufacturer.
- 3. Technical manual/brochure (English) in printed and electronic (soft copy) format.
- 4. Warranty certification from the Equipment Manufacturer
- 5. Documentation on equipment installation, operation, configuration, and testing.

VII. WARRANTY

- 1. One (1) year warranty certificate shall be issued by the Solution provider for the following units:
 - f. UPS, 3.0KVA
 - g. UPS, 1.5KVA
 - h. Gent set
 - i. ATS
 - j. Day tank
- 2. Three (3) years warranty certificate shall be issued by the Solution provider for the following network equipment:
 - f. Core switch
 - g. Distribution Switch
 - h. PoE Access Switch
 - i. Wireless Access Point
 - i. Wireless Controller
- 3. Three (3) years subscription and warranty for the following network management:
 - c. Network Management System
 - d. Guest and BYOD Management System

- 4. Three (3) year subscription and warranty for the following management and security products:
 - j. Endpoint Security
 - k. Security Intelligent Threat Detection and Response Platform
 - 1. Security Operations Management
 - m. IT Helpdesk System (Enterprise)
 - n. IT Operations Management: Applications Management software (Enterprise)
 - o. Unified Endpoint Management and Security Software (Enterprise)
 - p. NGFW Unified Threat Protection (UTP) (IPS, Advanced Malware Protection, Application Control, URL, DNS & Video Filtering, Antispam Service)
 - q. Link Load balancer
 - r. Hyper-Converged Infrastructure Appliance
- 5. Three (3) years warranty for the following Data Center Components:
 - a. Smart cabinets
 - b. ACU
 - c. Door Access Control System
 - d. Fire Suppression System
 - e. Lighting System
- 6. Three (3) years warranty for the following IP Telephony and IP Based Public Address System:
 - c. IP Telephony System
 - d. IP Based Public Address System
- 7. A twenty-five (25) year system warranty certificate shall be issued by the Cabling System Manufacturer after audit by a technical engineer from the Cabling System Manufacturer for the structured cabling system installed.
- 8. The warranty shall cover for twenty-five (25) years the following:
 - e. Products (fiber patch panels, pigtails, adapter plates, fiber patch cords)
 - f. Fiber Optic Cables
 - g. Products (Patch Panel, UTP jack, Faceplate, patch cord)
 - h. UTP Cable

VIII. TERMS OF PAYMENT

Supplier may submit a request for payment based on the Progress Reports which shall be attached to the progress billing and include the following: (i) Cumulative value of the work delivered based on the schedule of deliveries and other relevant terms and conditions of the contract; and (ii) Inspection and Acceptance Reports, including certification by Supplier, as approved by the duly authorized DepEd representative, that the items have been delivered and/or properly installed and commissioned in accordance with the contract.

The method and conditions of payment to be made to the Supplier through the Government disbursement procedure within sixty (60) days after the date of acceptance of Goods at the delivery site and upon submission of documents under this contract shall be as follows:

Advance Payment

• A mobilization fee of fifteen percent (15%) of the contract amount shall be allowed and paid within sixty (60) calendar days from signing of the contract. An irrevocable letter of credit or bank guarantee of an equivalent amount must be submitted and shall remain valid until the goods and services are delivered and accompanied by a claim for mobilization payment.

Progress Payment

- 1. Subject to the provision on advance payment and other deductions herein provided, progress payment shall be paid to the Supplier in accordance with the following schedule: **Please refer to Annex D Terms of Payment**
- a. The statement of work accomplished must be certified by DepEd's Representative/Project Engineer. Materials and equipment delivered on the site but not completely installed and in operation shall not be included for payment.
- 2. DepEd shall deduct the following from the certified gross amounts to be paid to the Supplier as progress payment:
 - a. Cumulative value of the work previously certified and paid for
 - b. Portion of the advance payment to be recouped for the month.
 - c. Retention money in accordance with the condition of contract
 - d. Amount to cover third party liabilities
 - e. Amount to cover uncorrected discovered defects in the works.

3. Payment Certificates

- a. The Contractor shall submit to the Procuring Entity's Representative estimated value of the work executed per milestone.
- b. The Procuring Entity's Representative shall check the Contractor's submission and certify the amount to be paid per milestone.
- 4. Payment shall be made within sixty (60) calendar days after the date of acceptance of goods and services at the Project Site and upon submission of the following documents:
 - a. Milestones 1, 2 and 3
 - i. Request for payment for Work accomplished.
 - ii. Approved Engineering Design
 - iii. Billing / Invoice
 - iv. Signed Delivery Receipts
 - v. Signed Inspection and Acceptance Report (IAR)
 - b. Milestone 4
 - i. Request for Payment
 - ii. Statement of Account (SOA) / Billing / Invoice
 - iii. Signed Attendance Sheet
 - iv. Submission of Training Manual
 - v. Certificate of Acceptance for the conduct of training

Final Payment

- 1. Final payment shall constitute release of the retention money in case of expiry of the warranty period, or in case of use in part of the retention money by reason of a call upon the warranty, the final payment shall constitute the release of the balance amount.
- 2. All progress payments shall first be charged against the advance payment until the latter have been fully recouped.

IX. OTHER REQUIREMENTS

- 1. The prospective bidder must conduct a Site Survey/Inspection prior to submission of bids at their own expense. Addition to which, the following should be met:
 - a. Prospective bidder must provide the list of personnel that would be onsite to conduct the site survey.
 - b. Prospective bidder shall provide photocopies (2 copies) of Company Issued ID at the time of inspection attached to the Letter request for Site survey/inspection.
- 2. Other documentary requirements to be submitted by bidder:
 - a. Proposed design, configuration, and specifications of offered design, systems and technology shall show compliance, compatibility and best fit to the desired systems subject for evaluation of the procuring entity.
 - b. Proposed Work Plan and Detailed Implementation Schedule for the Project covering the whole period. Prospective Bidders are required to conduct site inspection. This is to ensure the reliability, security, and efficiency of the required services that the prospective bidder shall perform. Timeframe should be specified for each activity to be done and shall include Gantt Chart Summary.

STATEMENT OF COMPLIANCE

I hereby commit to provide the above specified requirements in compliance with the Technical Specifications and Terms of Reference for the Project: Supply, Delivery, Installation, Testing, Training and Maintenance of Department of Education Central Office Network Rehabilitation Project 2022.

Name and Signature of Bidder's Authorized Representative

Section IX. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents		
Legal Do	cuments	
(a)	Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) in accordance with Section 8.5.2 of the IRR;	
Technico	al Documents	
(b)	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	
(c)	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	
(d)	Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission <u>or</u> Original copy of Notarized Bid Securing Declaration; <u>and</u>	
(e)	Conformity with the Technical Specifications, which may include production/delivery schedule, manpower requirements, and/or after-sales/parts, if applicable; and	
(f)	Original duly signed Omnibus Sworn Statement (OSS) <u>and</u> 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.	
Financia	l Documents	
(g)	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	
(h)	If applicable, a duly signed joint venture agreement (JVA) in case the joint venture is already in existence <u>or</u> 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.	

II. FINANCIAL COMPONENT ENVELOPE

(i)	Original of duly signed and accomplished Financial Bid Form; and
(j)	Original of duly signed and accomplished Price Schedule(s).
Other do	See Annex "" for the Price Schedule Form. <u>ocumentary requirements under RA No. 9184 (as applicable)</u> [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.
<u> </u>	Certification from the DTI if the Bidder claims preference as a Domestic Bidder or Domestic Entity.

LIST OF ALL ONGOING GOVERNMENT & PRIVATE CONTRACTS INCLUDING CONTRACTS AWARDED BUT NOT YET STARTED

Name of Contract/	Owner's Name				Date Awarded	% of Accomplishment		Value of
Project Cost	a. Address b. Telephone Nos.	Nature of Work	Description	%	a. Date Started b. Date of Completion	Planned	Planned Actual	Outstanding Works / Undelivered Portion
Government								
<u>Private</u>								
Dogianation		of Contract (s	first column from	m le	eft)	ongoing c	ontracts" or	"None" or "Not

STATEMENT IDENTIFYING THE SINGLE LARGEST COMPLETED CONTRACT

Business Name	<u>:</u>				_		
Business Address	:				_		
			Bidder's	Role		a. Date Awarded b. Contract	
Name of Contract	a. Owner's Name b. Address c. Telephone Nos.	Nature of Work	Description	%	a. Amount at Award b. Amount at Completion c. Duration	Effectivity c. Date Completed d. Contract Performance certified by End User	
<u>Government</u>							
<u>Private</u>							
Note: The bidder shall be a	able to support this statem	ent with:				•	
	cts/Purchase Orders (POs NTP) with the correspondi		Memoranda of A	greemen	t (MOA)/Notices of Award (l	NOA)/Job Orders or	
	pletion of Delivery (CCDs)/ oction and Acceptance Rep		Final Acceptance	e (CFAs),	duly signed Delivery Recei	pts (DRs), or duly	
Submitted by	:						
	(Printed	d Name and Si	gnature)				
Designation	: <u> </u>						
Date	:						

Joint Venture Agreement Form

	
KNOW ALL MEN BY THESE PRESENTS	:
, of legal age, <u>(c</u>	REEMENT is entered into By and Between ivil status), owner/proprietor of ent of
	and -
, of legal age	, <u>(civil status)</u> , owner/proprietor of t of
is needed to facilitate the Joint Venture	gether their manpower, equipment, and what to participate in the Eligibility, Bidding and project to be conducted by the <i>(Name of the</i>
NAME OF PROJECT	CONTRACT AMOUNT
assignment. That both parties agree own the share as	jointly and severally liable for the entire te that and and interest of and and entage of shares) respectively
granted full power and authority to onecessary and/or to represent the Joeffectively and the Joint Venture may dof substitution and revocation. THAT this Joint Venture Agreement	and/or l Representative of the Joint Venture,and is lo, execute and perform any andall acts oint Venture in the bidding as fully and o and if personally present with full power tent shall remain in effect only for the
stated Projects until terminated by both	parties.
Done this day of	in the wear of our Lord

SIGNED IN T	THE PRESEN	CE OF:	
Witness		Witness	3
REPUBLIC OF THE PHILIPPINES) S PASIG CITY, METRO MANILA)	.S.		
ACKNOY	WLEDGM	ENT	
BEFORE ME, a Notary Public Philippines, this day appeared:			
<u>NAME</u>	IDENTIFIC	MENT-ISSUED CATION CARD <u>Issued on</u>	<u>Issued at</u>
Known to me and to me kno foregoing instrument and acknowled act and deed of the entities which the	lged to me th	at same is the free	
The foregoing instrument is a pages (exclusive of attachments), include is written and signed by the parties hand margin of each and every page	luding this pa ereto and the	age on which this acl	knowledgment
WITNESS MY HAND AND SEA	NO	e and place first abov TARY PUBLIC til December 31, 20_	
Doc. No Page No Book No Series of 20			

NET FINANCIAL CONTRACTING CAPACITY (NFCC) FORM

A.	Summary of the Applicant Supplier's/Distributor's/Manufacturer's assets and
	liabilities on the basis of the attached income tax return and audited financial
	statement, stamped "RECEIVED" by the Bureau of Internal Revenue or its duly
	accredited and authorized institutions, for the preceding calendar/tax year which
	should not be earlier than two (2) years from date of bid submission.

		Year 20
1.	Total Assets	
2.	Current Assets	
3.	Total Liabilities	
4.	Current Liabilities	
5.	Net Worth (1-3)	
6.	Net Working Capital (2-4)	

B. The Net Financial Contracting Capacity (NFCC) based on the above data is computed as follows:

NFCC = K (current asset – current liabilities) minus value of all outstanding works under ongoing contracts including awarded contracts yet to be started

NFCC = P

K = 15 regardless of contract duration

Herewith attached are certified true copies of the income tax return and audited financial statement: stamped "RECEIVED" by the BIR or its duly accredited or authorized institution for the preceding year which should not be earlier than two (2) years from date of bid submission.

Submitted by:			
Name of Supplier / Distributor / Manufacture	er		
Signature of Authorized Representative Date:			

NOTE: If Partnership or Joint Venture, each Partner or Member Firm of Joint Venture shall submit the above requirements.

Performance Securing Declaration (Revised)

[if used as an alternative performance security but it is not required to be submitted with the Bid, as it shall be submitted within ten (10) days after receiving the Notice of Award]

REPUBLIC OF THE PH	ILIPPINES)	
CITY OF) S.S.	

PERFORMANCE SECURING DECLARATION

Invitation to Bid: [Insert Reference Number indicated in the Bidding Documents] To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

- 1. I/We understand that, according to your conditions, to guarantee the faithful performance by the supplier/distributor/manufacturer/contractor/consultant of its obligations under the Contract, I/we shall submit a Performance Securing Declaration within a maximum period of ten (10) calendar days from the receipt of the Notice of Award prior to the signing of the Contract.
- 2. I/We accept that: I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of one (1) year for the first offense, or two (2) years **for the second offense**, upon receipt of your Blacklisting Order if I/We have violated my/our obligations under the Contract;
- 3. I/We understand that this Performance Securing Declaration shall cease to be valid upon:
 - a. issuance by the Procuring Entity of the Certificate of Final Acceptance, subject to the following conditions:
 - i. Procuring Entity has no claims filed against the contract awardee;
 - ii. It has no claims for labor and materials filed against the contractor; and
 - iii. Other terms of the contract; or
 - b. replacement by the winning bidder of the submitted PSD with a performance security in any of the prescribed forms under Section 39.2 of the 2016 revised IRR of RA No. 9184 as required by the end-user.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [month] [year] at [place of execution].

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE] [Insert signatory's legal capacity] Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Republic of Philippines **DEPARTMENT OF EDUCATION**



DepEd Complex, Meralco Avenue, Pasig City

PROJE	CT:		ion, Testing, Training and ent of Education Central ion Project 2022
CONTR	ACT NO.:		
		CONTRACT	
Meralco A Meralc	and between the Invenue, Pasig City Partment Ordester referred to as a second s	ade and entered into this	N, located at DepEd Complex, ———————————————————————————————————
(1	Lot No. f applicable)	Description	Amount (PhP)
	r applicable;		
NOV	W THIS CONTRA	CT WITNESSETH AS FOLLO	ws:
1.		t, words and expressions shall assigned to them in the Condi	
2.	Rules and Regu	locuments as required by the ulations of Republic Act No. 9 d construed as part of this Cor	184 shall be deemed to form
	a. Resolution	to Award No	dated;
	b. Philippine	Bidding Documents;	

		 i. General and Special Conditions of the Contract; ii. Schedule of Requirements; and iii. Technical Specifications; iv. Bid Bulletin No dated;
	c.	's bid, including the eligibility requirements, technical and financial proposals, and all other documents or statements submitted;
	d.	Performance Security;
	e.	Notice of Award (NOA) of Contract and's conforme thereto; and
	f.	Other contract documents required by existing laws and/or DepEd in the Bidding Documents agrees that additional contract documents of information prescribed by the Government Procurement Policy Board (GPPB) that are subsequently required for submission after the contract execution such as, but not limited to, Notice to Proceed, Variation Order, and Warranty Security, shall form part of the Contract.
3.	rece Perforfe its of exte Performation	shall post a Performance Security within 10 calendar days from ipt of the NOA in the form and amount prescribed therein. The formance Security shall be posted in favor of DEPED , and shall be eited in the event that it is established that is in default of any of obligations under this Contract shall be responsible for the noion of its performance security and/or undertake to renew its formance Security whenever necessary, and without the need for prior of instruction from DEPED , to ensure that it is in force and effect for whole duration of the Contract and until a Certificate of Final eptance is duly issued.
4.	rend cale indi deliv Req	goods and services referred to in this Contract shall be delivered and dered by at within manual days from the receipt of the Notice to Proceed (NTP) or as may be cated in the NTP shall ensure that the goods will be vered and services will be rendered in accordance with the Schedule of uirements, which is hereto attached as Annex "B" and made an integral a hereof.
	deliv be r and	ds delivered and services rendered to sites other than the designated very site without DEPED 's written authorization and/or approval may rejected by the latter. Violation of this provision, based on documents reports submitted and validated by the authorized receiving personnels be cause for the termination of the Contract.
5.	to th	Delivery and Pre-Implementation Conference shall be conducted prior ne inspection of goods by the designated DepEd Inspectorate Team, as the applicable and necessary.
6.		PED shall have the right to visit and inspect's premises

	to monitor and assess's capacity to discharge its contractual obligations.
7.	Prior to and for purposes of inspection, shall ensure convenient access to the goods for inspection shall assign personnel to undertake the handling, unpacking, assembly, commissioning, disassembly, repacking, resealing, and sorting of the goods prior to, during, and after inspection.
8.	The goods shall be inspected by the designated DepEd Inspectorate Team. shall coordinate with DEPED , through the Procurement Management Service-Contract Management Division (ProcMS-CMD), on the conduct of inspection or pre-delivery inspection (PDI). Any request for inspection or PDI shall be done in writing, and submitted in accordance with SCC Clause 4 of the Bidding Documents.
9.	The goods and services must conform to and comply with the standards mentioned in Section VI. Schedule of Requirements of the Bidding Documents, and must be in accordance with the approved terms of reference, and final technical specifications as approved by the Bids and Awards Committee, or as amended by subsequently issued Bid Bulletin, if any, based on the samples submitted by, and reflected in the post-qualification report, which is hereto attached as Annex "C" and made an integral part hereof.
	Any proposal by to deliver goods of different technical specifications and perform services, in lieu of those approved bids or samples, shall not be allowed. However, under justifiable circumstances, i.e. fortuitous events, force majeure, acts of God, public state emergency, or those defined under the Civil Code and other similar circumstances, delivery of goods of equivalent, higher, or superior technical specifications may be permitted, subject to the evaluation and favorable recommendation of the DEPED 's end-user or implementing unit, and the approval of the herein authorized signatory. In any such case, the proposal by for substitution shall be in writing and shall not result in any additional cost or undue burden to DEPED .
10.	Goods with defects or non-compliant with the required technical specifications upon delivery shall be rejected, orally or in writing, by DEPED and replaced by in accordance with the warranty provisions in the bidding documents. The replacement of the goods shall be subject to re-inspection.
11.	In case encounters condition(s) impeding timely delivery of the goods and performance of services, shall promptly notify DEPED in writing within five (5) calendar days from notice of such condition(s). Any request for work suspension and/or contract period extension shall be promptly done in writing as soon as circumstances for such request have become apparent must provide sufficient proof to support any request for work suspension and/or contract period extension.
12.	The Contract Price shall be paid to in accordance with the following disbursement procedures:

may submit a request for payment based on the following: a. Actual value of services rendered and quantity of goods delivered based on the schedule of delivery and other relevant terms and conditions of the Contract; ii. Duly signed Delivery Receipt/s; and Duly signed Inspection and Acceptance Report/s (IAR/s), iii. including certification by _____, duly signed and dated by the authorized representative of **DEPED** indicating that the goods have been delivered and required services have been rendered in accordance with the Contract. Approved commissioning and testing report, as applicable; iv. Approved engineering design, as applicable; and v. Certificate of Acceptance for the conduct of training, including vi. the training manual and signed attendance sheet, as applicable. Other documents in support of a request for payment may be required by **DEPED** pursuant to existing disbursement, accounting, and auditing rules and procedures. Payment shall be made to _____ within 60 days from submission of the b. documents specified in SCC Clause 2.2 and other documents as may be prescribed by **DEPED** in the following manner: Progress payment shall be paid to the Supplier/Service Provider in accordance with the following schedule: Percentage of Works to be the Contract Milestone Description accomplished Price Final payment shall consist of the full and final payment of the unpaid inspected and accepted goods, subject to the submission of the required documents under the Bidding Documents; and 13. Payment shall be subject to the "Warranty" provision in the form of either retention money in an amount equivalent to ___ percent (__%) of the progress payment or a Special Bank Guarantee in an amount equal to percent (___%) of the Contract Price required under Section 62 of RA 9184 and its revised IRR. Comprehensive and on-site warranty for the goods shall be applied, a. detailed as follows: Warranty Period **Items**

The said warranty periods reckon from the date of the issuance of the Certificate of Final Acceptance by **DEPED**.

	Replacement and/or repair of the goods may be requested within the aforementioned warranty periods. Replacement of the goods shall be made within seven (7) calendar days upon claim or request therefor The said replacement must be of the same branding specification and installed prior to pull-out of the defective or unrepairable unit/s. On site repair of the goods must be made on the next business day upor claim or request therefor.	e 1
	In case opts for retention money, the amount shall be released at the expiration of the warranty period or the remaining amount in case it has been utilized pursuant to the warranty provision unless, during the remainder of the warranty period, the retention money is substituted with a special bank guarantee.	g 1
14.	Each party in the performance of their respective duties and responsibilities under this Contract and in the implementation thereof shall adhere to Republic Act No. 10173, otherwise known as the "Data Privacy Act of 2012." Any gathered data and information should be protected and respected during the term and even after the termination of this Contract. The processing of any gathered data and information should be in compliance with the confidentiality and privacy requirements under the said law and applicable regulations.	o " d e
15.	shall be liable for liquidated damages in an amount equal one-tenth (1/10) of one percent (1%) of the cost of the delayed goods scheduled for delivery, for every day of delay until such goods are finally delivered and accepted by DEPED . DEPED shall deduct the liquidated damages from any money due or which may become due to, or collect from any of the securities or warranties posted by, whichever is convenient to DEPED . Once the accumulated amount of liquidated damages reaches 10% of the Contract Price, DEPED may rescind or terminate the Contract, without prejudice to other courses of action and remedies available under the circumstances.	r d y y s s
16.	The PARTIES shall make every effort to resolve amicably and by mutual consultation any and all disputes or differences arising between the PARTIES in connection with the implementation of the Contract. Should such dispute not be resolved amicably, it shall be submitted to Early Neutra Evaluation pursuant to Republic Act No. 9285 or the "Alternative Dispute Resolution Act of 2004", and its Implementing Rules and Regulations.	e 1 1
	TNESS WHEREOF , the PARTIES hereto have caused this Contract to be a accordance with governing laws on the day and year first above written.	e e
	SIGNED, SEALED AND DELIVERED BY:	
De	partment of Education	

	SIGNED IN THE PRESENCE OF:	
DEPED's Witness		 _'s Witness
	CERTIFIED FUNDS AVAILABLE:	
	Chief Accountant	_
REPUBLIC OF THE PHILIPPINE, METRO	•	
	ACKNOWLEDGMENT	
BEFORE ME, a Notary Pt	ablic in and for 3 personally appeared:	, Philippines, this
NAME	GOVERNMENT IS (Number, Issued C	
Department of Education		
	n to be the same persons who me that the same is the free and ctively represent.	
attachments), including this page	CONTRACT consisting of six (ge on which this acknowledgmen instrument witness on the left-ha	t is written and signed
WITNESS MY HAND AND SEAL	on the date and place first above	written.
Doc. No; Page No; Book No; Series of 2023.	NOTARY PUBLIC	

Bid Security (Bank Guarantee) Form

WHEREAS, [insert name of Bidder] (hereinafter called the "Bidder") has submitted its bid dated [insert date] for the [insert name of contract] (hereinafter called the "Bid").

KNOW ALL MEN by these presents that We [insert name of Bank] of [insert name of Country] having our registered office at [insert address] (hereinafter called the "Bank" are bound unto the DEPARTMENT OF EDUCATION Central Office, (hereinafter called the "Entity"), in the sum of [insert amount] for which payment well and truly to be made to the said Entity the Bank binds itself, its successors and assigns by these presents.

SEALED with the Common Seal of said Bank this__ day of ______201_.

THE CONDITIONS of this obligation are:

- 1. If the Bidder:
 - (a) withdraws its Bid during the period of bid validity specified in the Form of Bid; or
 - (b) does not accept the correction of arithmetical errors of its bid price in accordance with the Instructions to Bidder; or
- 2. If the Bidder having been notified of the acceptance of its bid by the Procuring Entity during the period of bid validity:
 - (a) fails or refuses to execute the Contract Form in accordance with the Instructions to Bidders, if required; or
 - (b) fails or refuses to furnish the Performance Security in accordance with the Instructions to Bidders.

We undertake to pay to the Entity up to the above amount upon receipt of its first written demand, without the Entity having to substantiate its demand, provided that in its demand the Entity will note that the amount claimed by the Entity is due to the Entity owing to the occurrence of one or both of the two (2) conditions, specifying the occurred condition or conditions.

The Guarantee will remain in force up to and including the date *[insert days]* days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Entity, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE	SIGNATURE OF THE BANK
WITNESS	SEAL
(Signature, Name and Address)	

Bid Securing Declaration Form

[shall be submitted with the Bid if bidder opts to provide this form of bid security]

REPUBLIC OF THE PHILIPPINES)	
CITY OF) S.S.

BID SECURING DECLARATION Project Identification No.: [Insert number]

To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

- 1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
- 2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
- 3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant toyour request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or
 - (ii) I/we filed a waiver to avail of said right; and
 - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this_day of [month] [year] at [place of execution].

[Insert NAME OF BIDDER OR ITS AUTHORIZEDREPRESENTATIVE] [Insert signatory's legal capacity] Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Omnibus Sworn Statement (Revised) [shall be submitted with the Bid]

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF	S.S

AFFIDAVIT

- I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with the law, do hereby depose and state that:
- 1. [Select one, delete the other:]

[If a sole proprietorship:] I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

[If a partnership, corporation, cooperative, or joint venture:] I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. [Select one, delete the other:]

[If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

[If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable;)];

- 3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;
- 4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- 5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. [Select one, delete the rest:]

[If a sole proprietorship:] The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a partnership or cooperative:] None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a corporation or joint venture:] None of the officers, directors, and controlling stockholders of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the enduser unit, and the project consultants by consanguinity or affinity up to the third civil degree;

- 7. [Name of Bidder] complies with existing labor laws and standards; and
- 8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
 - a. Carefully examining all of the Bidding Documents;
 - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract:
 - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the [Name of the Project].
- 9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
- 10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

IN	WITNESS	WHEREOF,	I have	hereunto	set my	hand hand	this	day	of	 20	at
		Philippines.									

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]

Affiant

[Jurat]
[Format shall be based on the latest Rules on Notarial Practice]

Performance Security (Bank Guarantee) Form

To : The Secretary

Department of Education

DepEd Complex, Meralco Avenue

Pasig City

Attention: The Chairperson

Bids and Awards Committee

WHEREAS, <u>[insert name and address of Supplier]</u> (hereinafter called the "Supplier") has undertaken, in pursuance of Contract No. <u>[insert number]</u> dated <u>[insert date]</u> to execute <u>[insert name of contract and brief description]</u> (hereinafter called the "Contract");

AND WHEREAS, it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS, we have agreed to give the Supplier such a Bank Guarantee;

NOW THEREFORE, we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Supplier, up to a total of *[insert amount of guarantee]* proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[insert amount of guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Supplier before presenting us with the demand.

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

This guarantee shall be valid until the date of your issuance of the Notice of Final Acceptance.

SIGNATURE AND SEAL OF THE GUARANTOR	
NAME OF BANK	
ADDRESS	
DATE	

FINANCIAL BID FORM

Date:	
Project No:	

The Secretary
Department of Education
DepEd Complex, Central Office
Meralco Avenue, Pasig City

Attention: The Chairperson

Bids and Awards Committee

Gentlemen and/or Ladies:

Having examined the Bidding Documents including Bid Bulletin Numbers [insert numbers], the receipt of which is hereby duly acknowledged, we, the undersigned, offer to [supply/deliver/perform] [description of the Goods] in conformity with the said Bidding Documents for the sum of [total Bid amount in words (and figures)] or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our Bid is accepted, we undertake to provide a performance security in the form, amounts, and within the times specified in the Bidding Documents.

We agree to abide by this Bid for the Bid Validity Period specified in BDS provision for ITB Clause 17.1 and 18.2, respectively, and it shall remain binding upon us and may be accepted at any time before the expiration of that bid validity period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon us.

We understand that you are not bound to accept the lowest or any Bid you may receive.

We certify/confirm that we comply with the eligibility requirements as per ITB Clause 5 of the Bidding Documents.

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We likewise certify/confirm that the undersigned, [for sole proprietorships, insert: as the owner and sole proprietor or authorized representative of <u>Name of Bidder</u>, has the full power and authority to participate, submit the bid, and to sign and execute the ensuing contract, on the latter's behalf for the <u>Name of Project</u> of the <u>Name of the Procuring Entity</u>] [for partnerships, corporations, cooperatives, or joint ventures, insert: is granted full power and authority by the <u>Name of Bidder</u>, to participate, submit the bid, and to sign and execute the ensuing contract on the latter's behalf for <u>Name of Project</u> of the <u>Name of the Procuring Entity</u>].

We, further, confirm that, for purposes of this bid, and if such Bid is accepted, the address stated below shall be the Supplier's official address and contact numbers, as reflected in the (state proof of billing e.g. PhilGEPS Certificate, Mayor's Permit, SEC, Tax Clearance)

We acknowledge that failure to sign each and every page of this Bid Form, including the attached Schedule of Prices, shall be a ground for the rejection of our bid.

Dated this	day of	20
signature over prin	ted name of	in the capacity of
Authorized Represen	ntative]	(designation of Authorized Representative
Duly authorized to	sign Bid for and o	on behalf of
	[Regi	stered Company/Business Name of the Bidder]
Address:		Telephone No :
Telefax:		Email address :

BANK GUARANTEE FORM FOR ADVANCE PAYMENT

To: Department of Education

[name of Contract]

Gentlemen and/or Ladies:

In accordance with the payment provision included in the Special Conditions of Contract, which amends Clause of the General Conditions of Contract to provide for advance payment, [name and address of Supplier] (hereinafter called the "Supplier") shall deposit with the PROCURING ENTITY a bank guarantee to guarantee its proper and faithful performance under the said Clause of the Contract in an amount of [amount of guarantee in figures and words].

We, the [bank or financial institution], as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the PROCURING ENTITY on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding [amount of guarantee in figures and words].

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

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

Signature and seal of the Guarantors

Yours truly,

[name of bank or financial institution]
[address]
[date]

SEALING AND MARKING OF BIDS

GOODS AND SERVICES

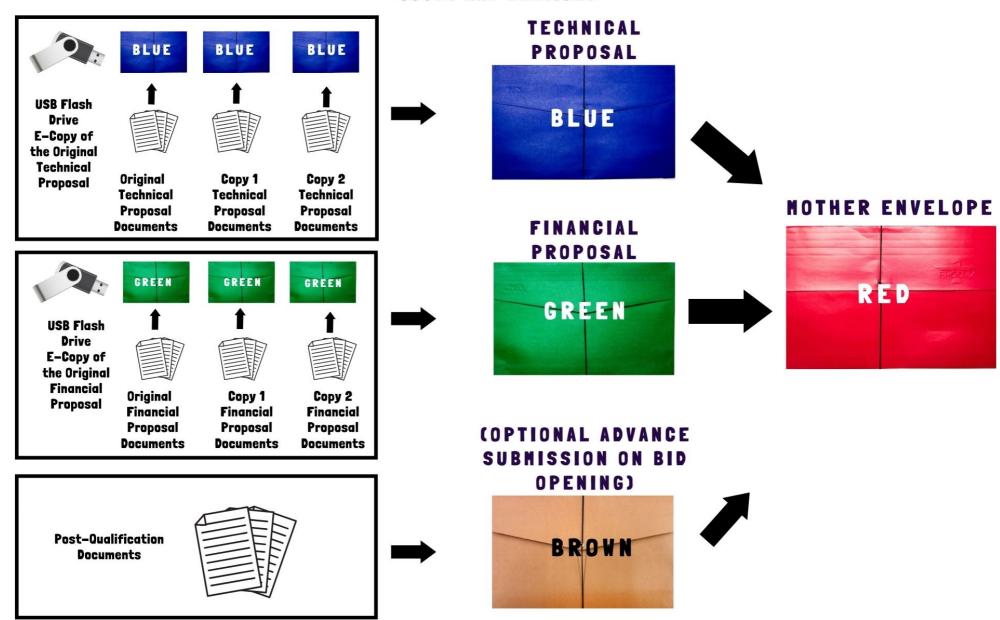


Illustration 1

ORIGINAL / COPY NO. ___

[BIDDER'S COMPANY NAME]
[COMPANY'S OFFICE ADDRESS] PUBLIC BIDDING:
[PROJECT TITLE]:
BIDDING FOR __[no.] : [item description] (if applicable)

THE CHAIRPERSON BIDS AND AWARDS COMMITTEE DEPARTMENT OF EDUCATION CENTRAL OFFICE [VENUE OF BID OPENING]

DO NOT OPEN BEFORE [TIME AND DATE OF BID OPENING]

