Office of the President of the Philippines
PRESIDENTIAL COMMUNICATIONS OFFICE
Manila

BIDS AND AWARDS COMMITTEE

BIDDING DOCUMENTS

For the

SUPPLY, DELIVERY, INSTALLATION, SUPERVISION, INTEGRATION, TRAINING, TESTING AND COMMISSIONING OF A TECHNICAL BROADCAST OPERATION CENTER (TBOC), MASTER CONTROL (MC), PLAYOUT AUTOMATION SYSTEM, FILE BASED/BASE BAND INGEST STATION, MEDIA ASSET MANAGEMENT SYSTEM (MAMS) AND DEEP ARCHIVE SOLUTIONS AND COMPLETE AUDIO/VIDEO/DATA SYSTEM AND OPERATION WORKFLOW OF THE HIGH-DEFINITION TECHNICAL OPERATION CENTER FOR THE VISAYAS MEDIA HUB (VMH) OF PRESIDENTIAL COMMUNICATIONS OFFICE

(Procurement/Contract No. 2023-PCO-112)

Sixth Edition

Glossary of Acronyms, Terms, and Abbreviations

ABC – Approved Budget for the Contract.

BAC – Bids and Awards Committee.

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

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

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

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

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

CDA - Cooperative Development Authority.

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

CIF – Cost Insurance and Freight.

CIP – Carriage and Insurance Paid.

CPI – Consumer Price Index.

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

DTI – Department of Trade and Industry.

EXW – Ex works.

FCA – “Free Carrier” shipping point.

FOB – “Free on Board” shipping point.

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

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

GFI – Government Financial Institution.

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

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

GOP – Government of the Philippines.

GPPB – Government Procurement Policy Board.

INCOTERMS – International Commercial Terms.

Infrastructure Projects – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports,

seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PhilGEPS - Philippine Government Electronic Procurement System.

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

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

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

UN – United Nations.

Office of the President of the Philippines
PRESIDENTIAL COMMUNICATIONS OFFICE
Manila

Section I. Invitation to Bid

FOR THE

Supply, Delivery, Installation, Supervision, Integration, Training, Testing and Commissioning of a Technical Broadcast Operation Center (TBOC), Master Control (MC), Playout Automation System, File Based/Base Band Ingest Station, Media Asset Management System (MAMS) and Deep Archive Solutions and Complete Audio/Video/Data System and Operation Workflow of the High-Definition Technical Operation Center for the Visayas Media Hub (VMH) (Procurement/Contract No. 2023-PCO-112)

1. The Presidential Communications Office (PCO), through the General Appropriations Act of 2023 intends to apply the sum of **Seventy-Three Million Four Hundred Thirty-Three Thousand Nine Hundred Forty Pesos (PHP 73,433,940.00)** being the ABC to payments under the contract for the project: **Supply, Delivery, Installation, Supervision, Integration, Training, Testing and Commissioning of a Technical Broadcast Operation Center (TBOC), Master Control (MC), Playout Automation System, File Based/Base Band Ingest Station, Media Asset Management System (MAMS) and Deep Archive Solutions and Complete Audio/Video/Data System and Operation Workflow of the High-Definition Technical Operation Center for the Visayas Media Hub (VMH) of Presidential Communications Office (Procurement/Contract No. 2023-PCO-112).**

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

2. The PCO now invites bids for the above procurement project. Supply and Delivery of the Goods shall be in accordance with Section VI. Schedule of Requirements, and Section VII. Bidders should have completed, **within five [5] years** from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).

3. Bidding will be conducted through open competitive bidding procedures using a non-discretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

   Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital

stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA No. 5183.

4. Prospective Bidders may obtain further information from PCO BAC Secretariat and through the e-mail address given below and inspect the Bidding Documents posted at the PCO website.

5. A complete set of Bidding Documents, in digital copy, may be acquired by interested Bidders starting **15 November 2023** from the PCO website given below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of **Twenty-Five Thousand Pesos (PHP 25,000.00).**

   The Procuring Entity shall allow the bidder to present its proof of payment for the fees by sending a clear scanned copy of the Official Receipt **on or before the deadline of submission of bids** to the PCO BAC Secretariat e-mail given below.

6. The PCO will hold a Pre-Bid Conference on **24 November 2023** at **1:00 PM** on the 7th Floor, Times Plaza Building, Ermita, Manila. Pre-registration shall be required for all interested suppliers to access. Those interested bidders must provide complete information in the Google Forms which may be accessed via this link: https://forms.gle/gK8SYhuZKUiJ2SvL6.

   Maximum of Two (2) authorized representatives
   will be allowed to join the Pre-bid conference per company.

   Prospective bidders are encouraged to discuss any concerns or clarifications about the eligibility requirements including the technical specifications in the said conference.

7. Bids must be duly received and acknowledged by the BAC Secretariat through manual submission **on or before 07 December 2023** at **8:00AM**. Late bids shall not be accepted.

8. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 14.

9. Bid opening shall be on **07 December 2023** at **1:00 PM** at the given address below. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

10. Prospective bidders are requested to organize and submit their Bids manually and suppliers are hereby reminded, as follows:

    To facilitate the evaluation of documents, the bidder is encouraged to include a table of contents per envelope, corresponding page numbers, and title pages before the actual document. For reference, the sample bidding documents may

be downloaded via these links: *Technical Component Envelope (1st Envelope)*; *Financial Component Envelope (2nd Envelope)*.

In case the bidder fails to submit any or all of the documentary requirements in a password-protected PDF files, the bid/quotation will automatically be disqualified and shall be declared as "FAILED" and the supplier will no longer be allowed to participate further in the procurement activities scheduled for this Project.

11. The PCO 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.

12. For further information, please refer to:

MARY WILLEN DJ. RENOMERON
Head, Bids and Awards Committee Secretariat
Office of the Bids and Awards Committee Secretariat
7th Floor, Times Plaza
United Nations Ave., Ermita,
City of Manila
Phone No.: (02) 8734-5968
E-mail Address: bac1@pco.gov.ph
Website: pco.gov.ph

13. You may visit the following websites:

For downloading of Bidding Documents:
https://pco.gov.ph/procurement/
https://www.philgeps.gov.ph/

For online bid submission:
bac1@pco.gov.ph

Issued on **15 November 2023**

(Original signed)
ASEC. EUGENE HENRY C. RODRIGUEZ
Chairperson
Bids and Awards Committee

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, Presidential Communications Office, wishes to receive Bids for the **Supply, Delivery, Installation, Supervision, Integration, Training, Testing and Commissioning of a Technical Broadcast Operation Center (TBOC), Master Control (MC), Playout Automation System, File Based/Base Band Ingest Station, Media Asset Management System (MAMS) and Deep Archive Solutions and Complete Audio/Video/Data System and Operation Workflow of the High-Definition Technical Operation Center for the Visayas Media Hub (VMH))** with Identification numbers: **Procurement/Contract No. 2023-PCO-0112**.

2. Funding Information

2.1. The GOP through the source of funding as indicated below for 2023 in the amount of

2.2. The source of funding is the **2023 General Appropriations Act.**

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:

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 shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA's CPI, must be at least equivalent to:

a. The Bidder must have completed a single contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC per lot.

5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.1 of the 2016 IRR of RA No. 9184.

6. Origin of Goods

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

7. Subcontracts

7.1. The Procuring Entity has prescribed that **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 through Zoom video conferencing as indicated in paragraph 6 of the **IB.**

9. Clarification and Amendment of Bidding Documents

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

10. Documents comprising the Bid: Eligibility and Technical Components

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

10.2. The Bidder's SLCC as indicated in **ITB** Clause 5.3 should have been completed within **five [5] years** prior to the deadline for the submission and receipt of bids.

10.3. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. Similar to the required authentication above, for Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

11. Documents comprising the Bid: Financial Component

11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section VIII (Checklist of Technical and Financial Documents)**.

11.2. If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a certification issued by DTI shall be provided by the Bidder in accordance with Section 43.1.3 of the 2016 revised IRR of RA No. 9184.

11.3. Any bid exceeding the ABCs indicated in paragraph 1 of the **IB** shall not be accepted.

12. Bid Prices

12.1. Prices indicated on the Price Schedule shall be entered separately in the following manner:

a. For Goods offered from within the Procuring Entity's country:

i. The price of the Goods quoted EXW (ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf, as applicable);

ii. The cost of all customs duties and sales and other taxes already paid or payable;

iii. The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and

iv. The price of other (incidental) services, if any, listed in e.

b. For Goods offered from abroad:

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

ii. The price of other (incidental) services, if any, as listed in **Section VII (Technical Specifications).**

13. Bid and Payment Currencies

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

13.2. Payment of the contract price shall be made in Philippine Pesos.

14. Bid Security

14.1. The Bidder shall submit a Bid Securing Declaration[1] or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.

[1] In the case of Framework Agreement, the undertaking shall refer to entering into contract with the Procuring Entity and furnishing of the performance security or the performance securing declaration within ten (10) calendar days from receipt of Notice to Execute Framework Agreement.

14.2. The Bid and bid security shall be valid until **16 February 2024***.* Any Bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

15. Sealing and Marking of Bids

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

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

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

16. Deadline for Submission of Bids

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

17. Opening and Preliminary Examination of Bids

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

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

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

18. Domestic Preference

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

19. Detailed Evaluation and Comparison of Bids

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

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

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

19.4. The Project shall be awarded as follows: **One Project having several items which shall be awarded as one contract**.

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

20. Post-Qualification

20.2. 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

ITB Clause	
5.3	For this purpose, contracts similar to the Project shall be: any contract similar to any **Supply, Delivery, Installation, Supervision, Integration, Training, Testing and Commissioning of a Technical Broadcast Operation Center (TBOC), Master Control (MC), Playout Automation System, File Based/Base Band Ingest Station, Media Asset Management System (MAMS) and Deep Archive Solutions and Complete Audio/Video/Data System and Operation Workflow of the High-Definition Technical Operation Center** Those contracts which involve goods and services of the same nature and complexity as the subject matter of the project being procured (*GPPB Non-Policy Matter No. 159-2017*); and Completed within **five [5] years** prior to the deadline for the submission and receipt of bids.
7.1	Subcontracting is not allowed.
12	No further instruction.
14.1	The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts: a. The amount of not less than **One Million Four Hundred Sixty-Eight Thousand Six Hundred Seventy-Eight and 80/100 Pesos (1,468,678.80)** if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or b. The amount of not less than **Three Million Six Hundred Seventy-One Thousand Six Hundred Ninety-Seven (PHP 3,671,697.00)** if bid security is in Surety Bond.
19.3	The proposed Approved Budget for the Contract of the project: **Supply, Delivery, Installation, Supervision, Integration, Training, Testing and Commissioning of a Technical Broadcast Operation Center (TBOC), Master Control (MC), Playout Automation System, File Based/Base Band Ingest Station, Media**

	Asset Management System (MAMS) and Deep Archive Solutions and Complete Audio/Video/Data System and Operation Workflow of the High-Definition Technical Operation Center for the Visayas Media Hub (VMH) (Procurement/Contract No. 2023-PCO-112) is **Seventy-Three Million Four Hundred Thirty-Three Thousand Nine Hundred Forty Pesos (PHP 73,433,940.00)**
20.2	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 the following: a. two (2) original/physical copies of the technical and legal documents, and financial documents submitted and subjected to preliminary examination during bid opening; b. latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS); and c. other appropriate licenses and permits required by law and stated in the Bidding Documents and Supplemental/Bid Bulletin.
21.2	No further instruction.

Section IV. General Conditions of Contract

1. Scope of Contract

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

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

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

2. Advance Payment and Terms of Payment

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

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

3. Performance Security

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

4. Inspection and Tests

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Project specifications at no extra cost to the Procuring Entity in accordance with the Generic Procurement Manual. In addition to tests in the **SCC**, **Section IV (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

6.1. 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.

6.2. 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

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 to this Contract are delivered at the Presidential Communications Main Office located at 7th floor Times Plaza Building, Taft Avenue Corner United Nations Avenue, Ermita, Manila. Risk and title will pass from the Supplier to the PCO upon receipt and final acceptance of the Goods at their final destination.
	Supply and Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in Section VI (Schedule of Requirements). For purposes of this Clause, the Procuring Entity's Representative at the Project Site is: **Ms. Ana Katrina De La Cruz** Executive Assistant II, Office of the Undersecretary for Content Production 2U Kimimori Bldg, Malacañang Compound, San Miguel, Manila Telephone No. 8734-5966 loc 106
	Incidental Services –
	The Supplier is required to provide all of the following services, including additional services, if any, specified in Section VI. Schedule of Requirements:

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

	Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the contract price.
	Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier obtains and presents to the Procuring Entity certification to this effect from the nearest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry are available but their schedule delays the Supplier in its performance of this Contract the period from when the Goods were first ready for shipment and the actual date of shipment the period of delay will be considered force majeure.
	The Procuring Entity accepts no liability for the damage of Goods during transit other than those prescribed by INCOTERMS for DDP deliveries. In the case of Goods supplied from within the Philippines or supplied by domestic Suppliers risk and title will not be deemed to have passed to the Procuring Entity until their receipt and final acceptance at the final destination.
2.2	No further instruction.
4	The inspection/tests of the goods shall be done as required under Section VII. Technical Specifications.

Section VI. Schedule of Requirements

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

Lot No.	Description	Delivery Schedule
1	**Supply, Delivery, Installation, Supervision, Integration, Training, Testing and Commissioning of a Technical Broadcast Operation Center (TBOC), Mater Control (MC), Playout Automation System, File Based/Base Band Ingest Station, Media Asset Management System (MAMS) and Deep Archive Solutions and Complete Audio/Video/Data System and Operation Workflow of the High Definition Technical Operation Center for the Visayas Media Hub (VMH) of Presidential Communications Office**	Completely delivered within **One Hundred Fifty (150) Calendar days** from receipt of Notice to Proceed

Conforme:

Full Name and Signature of Bidder/Authorized Rep. : _____

Designation : _____

Name of Company : _____

Section VII. Technical Specifications

Bidders must state **"Comply"** in the column **"Statement of Compliance"** against each of the individual parameters of each "Specifications".

LOT 1	**Supply, Delivery, Installation, Supervision, Integration, Training, Testing and Commissioning of a Technical Broadcast Operation Center (TBOC), Mater Control (MC), Playout Automation System, File Based/Base Band Ingest Station, Media Asset Management System (MAMS) and Deep Archive Solutions and Complete Audio/Video/Data System and Operation Workflow of the High Definition Technical Operation Center for the Visayas Media Hub (VMH) of Presidential Communications Office** **Bidders shall comply with the following minimum Technical Specifications:**	**QTY**	**Brand names**	**Statement of Compliance**
1.1	Core Router Frame capable for at least 72 SDI inputs x 72 SDI outputs. Mixed-signal routing (SD, HD, 3 Gb/s, audio and data paths) Seamless on-air expansion with zero downtime Full redundancy for power, control and signals Router matrix expansion functionality enables cost-effective expansion of outputs Modular I/O in support for coaxial Front-loading, hot-swappable modules for 24/7 operation Wide range of hardware control panels Powerful control integration for easy setup and configuration Software and web-based applications with user-configurable GUIs Protocol support for SNMP Secure access rights with restrictions by level, source and destination Easy-to-use HTML 5 software-based control panel Video routing support Almost any digital video signal from 3Mb/s to over 3Gb/s including: SD-SDI & HD-SDI to 1080i/p (3 Gb/s) ASI, SMPTE 310, SMPTE 305, etc. SMPTE compliant analog video supported via conversion to/from SD-SDI on I/O Support for up to 16 embedded audio signals per video input	1 set		
1.2	Input : 72 3G, HD-SDI (Modular per module)	1 lot		
1.3	*Output : 72 3G, HD-SDI (Modular per module)*	1 lot		
1.4	Re-legendable X-Y/LRC Numeric Auxiliary remote control panel with 24 source buttons and 24 destination buttons	4 units		
2.1	Multi-viewer display monitor 55" or better 4K (3,840 x 2,160) LCD/LED Monitor	4 units		
2.2	Customized frames with mounting kit and accessories (please refer to MV design).	1 lot		
3.1	Standalone Multi-viewer inputs, auto detect. HDMI (1080P 50/60Hz) and SDI (1080i/P 50/60Hz) Outputs. Windows can have multiple sizes and can be moved freely. UMDs, OMDs and standalone labels. Analog, Digital Clocks/Counters and Logos. System provides a real time Multiviewer display of video or audio services coming from different input interfaces Supporting TS over IP, UDP, SRT, NDI, RTSP, RTMP, RTP, HLS, DASH, HDMI/SDI DBVS ASI FM SNMP.	1 lot		
4.1	3g/HD/SDI Waveform monitor 3G/HD/SD Waveform Monitor With Dual Integrated Touchscreens, 3RU Half Rack, four inputs, each capable of supporting up to 12G-SDI. Designed to support both local and remote production situations up to 8K HDR Equipped with a rich set of standard applications such as Waveform, Vector, Lightning, Diamond, Picture, Video Session, Audio, Event Log, Timing, and IP Status.	1 lot		

	Flexible screen tile configurations provide full screen, two, three and four tile layouts giving flexibility in selecting a variety of software apps for user-specific applications, while still allowing easy viewing of each display.			
5.1	Technical monitor 21" LCD Display HDMI, 3G, HD, SD-SDI (Audio embedded) Input. two 3G-SDI inputs and two 3G-SDI outputs, Component, Composite & HDMI 1.3a Inputs, (must be viewable in any angle)	1 unit		
6.1	GPS System Global Positioning System (GPS) Antenna. Standalone	1 unit		
6.2	Time code Generator Produce digital Time Code Generate Centralized Time Code Generator to all Ingest, editing, Recording and storage in entire network.	1 unit		
6.3	Test signal Generator Generate all necessary signal and test pattern in TV broadcast w/ text ID capabilities, HD and SD-SDI output. Black burst, Bi-Level and Tri-Level sync., Analog Black Bars	1 unit		
7.1	Master & Slave Station Clock For centralized clock in entire broadcast facility. Station Clock for TOC/MCR & CER Area	1 lot		
8.1	Pulse & SDI Signal Distribution amplifier / Modular Frame (for SDI-VDA) Modular card type and adequate for Reference Gen-Lock for the entire system with redundant power supply frame. Modular card type HD-SDI (embedded audio) input and output with gain control and Switch On/Off output Re-clocked. The Distribution Amplifier supplied should not be less than 30dB for a long of coaxial cable run. 1. Signal type : 3 Gb/s HD, SD, ASI (embedded audio) 2. Connector : BNC 3. Impedance : 75 ohms Noise free universal frame holds up to 20 cards or more, with appropriate connector panel for each card at the back of the frame and at least four (4) BNC outputs and one (1) BNC input with active loop through per module. Shall be controlled and monitor by SNMP.	1 lot		
9.1	Audio/ Video Confidence monitors A combination of OLED display and high quality audio monitoring with built-in speaker capable to receive the following video signal HDMI, 4K, 3G, HD, SD-SDI (Audio embedded) Input. (Must be viewable in any angle). Also, capable to receive the following embedded audio signal mono, stereo analog audio, ASI, DTS etc. (Note: This confidence monitor is intended for AV lip sync detection)	1 unit		
10.1	File base quality control File base quality control for ingest, editing and playout server (see instruction on item H of this Technical requirements.	1 unit		
11.1	Audio & video processor with Audio Loudness Control Animated logo generator/inserter (1/9th screen size) with up to 80 seconds for at least 150 seconds for 1080i Real Time Loudness Control (RTLL) Insertion of closed captioning data from serial port Support for SFPs (Dual channel HD-BNC inputs and outputs, combination of HD-BNC and optical Input and output, SD/HD to DVI Converter, SD/HD to HDMI Converter) Intelligent dual-channel frame sync/delay, proc amp, noise reduction, clipping and color correction Fast frame sync, fast conversion, delay (lock to one input), program delay and time base corrector (TBC) modes Two switchable auto-sensing 3G/HD/SD inputs Dual up/down/cross/aspect/basic ratio conversion Noise reduction (mosquito and block), sharpness and texture controls Two aspect ratio converters with full control over H/V size and position with AFD support	1 unit		

	Built-in video test and audio tone generators Redundant power supplies Dual logo generator/inserters Static built-in, can be used for a trouble slide Optional 1/9 screen animated logos Audio de-embed/embed, sync, delay, gain, invert and delay processing PCM and non-PCM (Dolby® Digital Plus, Dolby® Digital, Dolby® E) passthrough Options for Dolby® Digital Plus, Dolby® Digital, Dolby® E decode and encode (up to 2 Dolby decoders and encoders) Options for DTS Neural Surround Upmix, Downmix, Multimerge and DTS Neural Loudness Control Video Interfaces: Auto-sensing for SD-SDI, HD-SDI, 3G-SDI Two SDI inputs (2 HD-BNC, Dual SFP) Four SDI Outputs (4 HD-BNC, Dual SFP) EDH/CRC error monitoring and insertion HDMI output One channel composite analog video Audio Interfaces Eight-channel analog audio 2 x 4 groups embedded audio 16 AES Control and Monitoring 100/100BT Ethernet connectivity SNMP compliant Built-in web control and monitoring Local control panel Four customizable GPI inputs and outputs			
12.1	Dual Channel Video Processor/frame synchronizer Standalone 3G, HD/SD-SDI (embedded audio) input and at least 2 HD/SD-SDI output, has video parameters control adjustment in front panel such as: video gain, Chroma gain, black setup, Audio/video lip sync, horizontal timing with reference Genlock input. Dual-channel capability frame sync/delay, proc amp, and noise reduction, clipping and color correction. Fast frame sync, fast conversion, delay (lock to one input), program delay and time base corrector (TBC) modes	1 unit		
13.1	Patch panel 32 holes x 2 normally close 3G, HD-SDI Digital Patch/Jack field must be from globally known manufacturer	1 lot		
13.2	Patch Cord 3G, HD-SDI Digital Patch Color Black must be from globally known manufacturer			
14.1	Network switches and router switch Part of installation materials High quality and high efficiency products came from globally known brand it shall be rack mounted. (number of ports are discretion of the system integrator but it shall be all are rack mounted)			
15.1	Network Management System (NMS/SNMP) Simple Network Monitoring Protocol Software based application that provides device configuration and various levels of control and monitoring for broadcast networks. Provides real-time parametric adjustment and enhanced alarm management and correlation. It allows discovery, configuration, control and monitoring through device control, as well as an enhanced graphical surface and enhanced scripting capabilities • Searchable alarm logging capability • User-configurable network views per devices • Secure and restricted user access control			

	• GUI supports video thumbnails and MPEG-4 streaming (depending on the modules that has streaming capability) • Single button to launch single or multiple presets • Single click to launch Web-based applications • Ability to employ and represent operational environments and workflows in a familiar and intuitive manner. • Allows users to discover compatible network elements • Ability to configure, control and monitor them from a simple and familiar navigational tree structure. Allow structure to logically group devices by simply dragging and dropping devices onto network nodes for faster problem isolation or control capabilities			
16.1	Media Asset Management System- SW Media Asset Management database synchronization service - allows bi-directional content metadata synchronization between Databases Media Asset Management system provides content registration, search, preview (proxy) and prepare (segment and markers). Requires service to synchronize content Metadata and database. Contains SW workflow capable of maintaining storage inventory of supported device(s) and executing workflows based on purchased workflow bundles or custom workflow implementations. Workflows can be triggered on storage triggers (created, updated deleted files, capacity), calendar/time based, user requests or automation missing media requests. Additional options available for third-party storage, transfer and processing solutions. 1 UI for workflow tasks & storage devices	1 lot		
16.3	Media Asset Management System- HW Ready for mirroring large amount of files (million), lots of workflow per week with few clients only. MINIMUM RECOMMENDED SYSTEM REQUIREMENT: Processor: 2 x 4-8 Core Xeon CPU, 2.5+ GHz Memory: 24-32+ GB RAM Drive(s): RAID 1 SAS HDD for system + RAID 10 array of 15k/rpm SAS HDD or SSD Network: Minimum 1 x 1Gb Ethernet Database Server: SQL Server in latest Edition Operating System: Latest version operating system Processor: 2 x 8 Core Xeon CPU, 2.5+ GHz Memory: 24-32+ GB RAM	1 set		
16.3	Media Asset Management System- CLIENT Media Asset Management System- Client PC for the operation of Media transfer and other processes. MINIMUM RECOMMENDED SYSTEM REQUIREMENT: Processor Any desktop CPU Memory 8+ GB RAM Drive(s) Any HDD Network 1Gb Ethernet or Wifi	1 set		
17	Archiving MINIMUM RECOMMENDED SYSTEM REQUIREMENT: Master Node Size: 4U Capacity: 48 TB – 480 TB Number of Drives: 12 - 35 Drive Type Archive: Up to 8 TB Enterprise: 4 TB, 8 TB 12 TB SSD: 1 TB, 2 TB Expansion Chassis Drive & Capacity Archive: Up to 96 Drives (768 TB) Enterprise: Up to 44 Drives (528 TB) System Capacity Archive: Up to 7.1 PB Enterprise: Up to 5.1 PB Port Connectivity: 2 Port—10 Gbase-T (RJ45) 2 Port—10 GigE (SFP+) 2 Port—40 GigE (QSFP+) Protection Level: Double or Triple Parity Failover Mode: Hot Pair	1 set		

17.1	Ingest Server Server Hardware (NOTE: Minimum technical specification requirement) Ingest Server shall deliver the exceptional reliability, flexibility and format transparency that broadcast operations demand System scales from small integrated servers to 1000+ channel NAS architecture. Pay as you go, online expansion of storage capacity and bandwidth. Support hybrid baseband + IP capability Future-proofed, software-defined media server Support integration of uncompressed, compressed IP and UHD/HD/SD SDI I/O 1 or 2 RU Rack Mount Up to 16 front-mounted hot-swappable media hard drives or SSDs 1+1 redundant hot-swappable power supply High CFM cooling for 24/7 operation 2 Intel Xeon 64-bit Haswell 6-core processors 64 GB DDR4 RAM expandable to 1536 GB 1+1 redundant front-mounted hot-swappable OS SSDs 4x 1GbE Ethernet Ports Optional additional 4x 1GbE, or 2x 10GbE, or 2x 40GbE Ethernet Ports Quadruple-head monitor ports; 4x DisplayPort 1.4 with adapter to DVI-D 1x VGA monitor port 3 USB 3.0 ports (1 front, 2 rear) Dedicated Hewlett Packard Enterprise Integrated Lights-Out (iLO) Ethernet Port R2 Standard 64-bit Embedded OS GPU co-processing engine for advanced SD/HD/UHD Up/Down/Cross-conversion processing Channel Configurations Mixed SD/HD Up/Down/Cross-conversion Up to 6 bidirectional channels Automatic input format detection Automatic aspect-ratio conversion (ARC) with Active Format Descriptor (AFD) support All channels software license key (SLK) enabled UHD-1 Ultra Hi-Def bidirectional channel INPUTS & OUTPUT, Broadcast Signal I/O HD/SDI Input Video: atleast 5 HD-BNC RS-232 LTC Input Reference Sync Input 1x HD-BNC Analogue Bi-Level 1080i Tri-Level AUDIO Inputs 4 pairs (8 channels) HD-BNC, unbalanced (AES/EBU) (optional) 8 pairs (16 channels) embedded HD-BNC Outputs 4 pairs (8 channels) HD-BNC, unbalanced (AES/EBU) (optional) 8 pairs (16 channels) embedded HD-BNC Storage Up to 32 tracks of PCM uncompressed audio per ID Up to 8 channels per track compressed, up to 256 compressed audio channels per ID Sample Precision 16-, 20- or 24-bit PCM, 48 kHz Compressed Audio Pass-Through Dolby® Digital (AC-3), Dolby® Digital Plus (E-AC-3), Dolby® E, DTS/DTS-HD pass through Compressed Audio Pass-Through Dolby® Digital (AC-3), Dolby® Digital Plus (E-AC-3), Dolby® E, DTS/DTS-HD pass through Compressed Audio Playback AAC/HE-AAC/HE-AACv2, MPEG1-LayerII (MP2) CODECS SUPPORTED	1 set		

	270 Mb/s SDI Video Formats MPEG-2 I-Frame MPEG-2 Long-GOP IMX 30, 40, 50 (D-10) DVCPRO25, DVCPRO50 DVCAM (PAL only) DV (NTSC only) Apple ProRes LT/422/HQ H.264/AVC Long-GOP 1.5 Gb/s HD/SDI 1080i, 1080p/PsF, 720p Video Formats MPEG-2 I-Frame & Long-GOP XDCAM HD/EX/422 AVC-Intra Class 50/100, AVC-Ultra Class 200 XAVC-Intra & Long-GOP H.264/AVC-HD Long-GOP DVCPRO HD Avid DNxHD Apple ProRes LT/422/HQ 3.0 Gb/s HD/SDI 1080p Video Formats MPEG-2 I-Frame & Long-GOP XDCAM 422 AVC-Intra Class 100 (~200Mbps) XAVC-Intra & Long-GOP H.264/AVC-HD Long-GOP Avid DNxHR 6.0, 12.0 Gb/s UHD-1 2160p Video Formats Apple ProRes LT/422/HQ H.264/AVC-UHD Long-GOP XAVC Long-GOP Class 188/300 XAVC-Intra Class 300/480 ASPECT RATIO HD (SD) 16:9, (16:9, 4:3) Aspect Ratio Conversion: Up/down/cross conversion support with NTSC EIA- 608 <> 708 caption conversion Up/down/cross conversion support with PAL WST/OP42 <> OP47 caption conversion AFD Support: Insert/fill/override embedded AFD metadata frame-by-frame on a per-ID or per-port basis SMPTE 2016 and ATSC TSG-814 TIMECODE I/O Serial RS-232, RS-422 LTC time-of-day data from reference/sync generator BNC LTC Balanced Analogue HD/SDI SD VBI Read, generate, and write discontinuous VITC1 and VITC2, user-selectable lines HD HANC/VANC Read, generate, and write discontinuous ATC/LTC, ATC/VITC1, and ATC/VITC2, user-selectable data location PTP IP Multicast IEEE1588/SMPTE2059 Precision Time Protocol time-of-day data for baseband PTP timestamp used for 2022-6/-7 UCIP output frames RS-422, TCP/UDP Protocols, & GPI Control Serial Ports Optional 8x RS-422 RJ12 ports. Includes cables and RJ12->DB9 adapters GPI I/O 8 Optional 16x GPI input, 16x GPI output Native Control Protocol TCP/IP, UDP Ethernet; RS-422 serial Video Disk Control Protocol (VDCP) TCP/IP Ethernet; RS-422 serial Timeline Playlist/Macro API TCP/IP Ethernet Simple Network Management Protocol (SNMP) SYSLOG Operating System and Application Message Logging TCP/IP Ethernet			

	FILE INTERCHANGE Supports 20+ simultaneous transactions; active and passive (FXP: File exchange protocol) Support for LXF, GXF, MXF OP1a, Self-Contained MOV (QuickTime), MP4/M4V Import support for Pinnacle, Quantel, MXF OP-Atom, MXF OP1b, Reference MOV (QuickTime), AS-03/-10/-11, MPEG-ES/PS/TS/MTS/EVO/VOB/M2V			
19.1	Playout Server (Main and Back-up) Integrated Playout Server shall deliver the exceptional reliability, flexibility and format transparency that broadcast operations demand No single point of failure; redundant power, networks, media paths. High-availability NAS storage System supports integration to the best of the world's automation, branding, graphics, file server, storage and master control. Support hybrid baseband + IP capability Future-proofed, 100% software-based media server solution Support integration of uncompressed, compressed IP and UHD/HD/SD SDI I/O	1 lot		
	Server Hardware 2RU Rack Mount 2x Intel E5-2680v3 (2x 12 cores, 24 cores total) 8x 8GB (64 GB) DDR4-2133 CAS-15-15-15 (or optimal configuration based on server manufacturer) 2x 80 GB RAID 1 recommended 4x 240 GB SSD RAID 5 recommended 4x 2TB 7.2K RPM RAID 5 recommended 1x 1 Gb/s management 1x 1 Gb/s control (automation) 1x 1 Gb/s video 1x 10 Gb/s video, Intel 82599 chipset 1x VGA monitor port 3 USB 3.0 ports (1 front, 2 rear) Dedicated Hewlett Packard Enterprise Integrated Lights-Out (iLO) Ethernet Port Minimum: Windows® Server 2012 R2 Standard 64-bit Embedded OS GPU co-processing engine for advanced SD/HD/UHD Up/Down/Cross-conversion processing, branding & graphics	1 lot		
	GRAPHICS BRANDING Bit Depth 32 bit 24 bit graphics (RGB), 8 bit alpha	1 lot		
	Graphic Video Format (Lossless compression) Custom sizing Up to 10 VIA video files running simultaneously VIA video files coverage up to 1x screen resolution	1 lot		
	Layouts Maximum of 10 layouts loaded simultaneously Multiple individually controllable elements per layout	1 lot		
	Rolls and Crawls Up to 4 rolls and/or crawls Up to 1/3 screen coverage at one time	1 lot		
	Clocks and Stills No practical limit	1 lot		
	DVE	1 lot		

	Quantity Two 2D DVEs Two DVEs on screen simultaneously	1 lot		
	Sources One active source per DVE at a time 2 internal video playback channels 1 internal video playback channel and 1 live input	1 lot		
	Control User-defined templates Automation triggering of templates Template-defined position and control Template-defined crop and video resizing	1 lot		
	Broadcast I/O	1 lot		
	IP Inputs 2 Inputs MPEG2 TS, H.264 or MPEG2 video	1 lot		
	IP Outputs 1 Output MPEG2 TS, H.264 or MPEG2 video Additional options configurable	1 lot		
	HD-SDI Inputs 2 Inputs via HD-BNC (hybrid only)	1 lot		
	HD-SDI Outputs 2 Outputs via HD-BNC (hybrid only) — video configurable	1 lot		
	HD-SDI Embedded Audio In 16 AES per channel	1 lot		
	HD-SDI Embedded Audio Out 16 AES per channel	1 lot		
	Video Formats 1080i, 720p, 480i, 480p	1 lot		
	Scan Rates (fps) 60, 59.94, 50, 29.97, 25	1 lot		
	Audio Format (uncompressed) PCM (16, 20, 24 bit, 48 KHz) — SMPTE ST 2022-6 & HD SDI	1 lot		
	Aspect Ratios 16:9, 4:3	1 lot		
	Closed Captioning EIA-608, EIA708: from file (SCC, STL, PAC, etc.), from media, live (EEG iCap), cross convert OP-42, OP-47: from file (SCC, STL, PAC, etc.), from media, Cross convert	1 lot		
	Genlock (Ref In) Standard (SMPTE ST 2059-2 (PTP)	1 lot		

	AUDIO	1 lot		
	Channels and Formats 8 pairs embedded per I/O channel (4 pairs if using 24-bit PCM with SD video	1 lot		
	Processing and Storage 16, 20, or 24-bit PCM, 48kHz	1 lot		
	Compressed Audio Dolby Digital (AC-3) and Dolby E pass-through	1 lot		
	Loudness Correction Linear Acoustics AERO	1 lot		
	AFD Pass-through or ARC	1 lot		
19.2	Playout Client (1x) Playout System Client minimum specification Processor Any desktop CPU Memory 8+ GB RAM Drive(s) Any HDD Network 1Gb Ethernet or Wifi	1 lot		
20.1	Master Control Switcher Master Control System is capable of operating in a software touchscreen master system and a hardware control panel. The system manages the manual and automated switching of video from remote sources through central router, playout server with graphics automation capabilities with a simple touch of the screen in a single and multichannel environment. Advance user interface that bring efficiencies to master control system. The master control system should be controlled by known Broadcast Automation in the market right now. Master Control System provides integrated graphics, and automation operations through a unified touchscreen interface. Graphics keys are assignable on the Master Control Panel with different layouts. Graphics control for “On Air” operation is taken on and off the keys manually or through automation process. Designed to fit into your playout environment, MCS features a rich set of control interfaces. Supporting most popular automation systems via IP, serial or GPI control, MCS can be easily configured for unattended 24/7 operation. However, when manual control is required, included touchscreen GUI via Dashboard™ or optional hard control panel make hands-on operation a snap. MCS also interfaces with Core router or any 3rd party routers via popular control protocols. From a single control interface, up to multiple channels can be integrated. Channels may be independently controlled (either manually or through automation),or be ganged together for simplified multi-format or multi-language applications. Adding additional channels to the system are easy.	1 lot		
20.2	Master Control Switcher- Playlist Playlist Client minimum specification Processor Any desktop CPU Memory 8+ GB RAM Drive(s) Any HDD Network 1Gb Ethernet or Wifi	1 lot		

20.3	Master Control Switcher- Graphics MINIMUM RECOMMENDED SYSTEM REQUIREMENT: P Z2 TWR Workstation G9 IDS Windows 11 Pro 64 Intel Core i7-12700 2.10G 25MB 12 cores 65W 16GB (1x16GB) DDR5 4800 UDIMM NECC Memory NVIDIA T1000 4 GB LP Blower Fan 4mDP PCIe x16	1 lot		
20.4	Back-Up Switcher Backup Swither with 16x16 Switcher I/O Configurations. Clean and Quiet – Provides, eliminates downstream signal interruption. Two channels of clean and quiet output each with access to all inputs on the device. Each channel is independent and supports a variety of transition types including, V-fade, Cut-fade, fade-cut, and cross fade, in addition to an immediate cut transition.	1 lot		
21.1	ON AIR NAS Storage NAS Storage shall be high-performance online storage system specifically designed for broadcast and production facilities, including news, sports and live-event applications Shall deliver unparalleled levels of bandwidth and storage to support the most demanding media workflows, NAS storage provides sharable and scalable storage throughout the content lifecycle. Flexible capacity & bandwidth Allows scaling of storage & bandwidth, without affecting existing media or interrupting on-air operations Faster time to air - True shared storage access facilitates collaboration and eliminates file copying, providing a fast-turnaround editorial environment and a shorter time to air Easy to manage- Shall Allow unattended drive rebuilds, supports remote monitoring and diagnostics, and includes an informative web user interface Superior codec support Supports virtually unlimited storage bandwidth supports a huge selection of codecs, including HD codecs above 100Mbps, such as AVC-Ultra, Sony XAVC, DVCPRO, ProRes, and DNxHD/DNxHR On-air scalability to over a petabyte of online shared storage with RAID-6 storage protection RAID-6 provides high availability, protecting against drive, controller and storage chassis failures, while maintaining system throughput Redundant Power Supply - Dual hot-swappable power supplies per enclosure Single storage nodes 3,000 Mb/s shared bandwidth (guaranteed), minimum 40TB of capacity 1x external metadata controllers Suitable solution for entry-level channel launch, customers with lower bandwidth requirements, real-time performance and peace-of-mind redundancy MINIMUM RECOMMENDED SYSTEM REQUIREMENT: System - HPE DL360, Intel 8-core Xeon CPU Memory - 64 GB DDR4 Network - Dual 10/25GB SFP28 Drive Controller - 12Gb/s Hardware RAID Controller and standard RAID 6 protection System Drives - Mirrored 480 GB SSD OS drives, rear accessible Power Supply - 1+1 hot-swappable power supplies 1+1+1 hot-swappable fans Protection Levels - RAID-6 Form Factor - 2U Racked Weight (w/HDD) - 24.5 kg (54 lbs) Dimensions - 8.73 x 44.54 x 73.02 cm 3.44 x 17.54 x 28.75 in Input Power Requirements - 100-240 VAC 50/60Hz Power Consumption (steady state/peak) - 500W	1 lot		
22.1	Compliance Recording (1 Channel SD/HD/Analog) Support Single Channel SD/HD/IP Recording / Multichannel compliance ingest (SD/HD/IP)	1set		

	Allow automated File Transfer and Removal after Ingest. Support easy ingest overlay time and date separately on each recorded file or stream Support re-Record Easy Ingest Capture Delay Compensation Option Shall ingest any type of feed: analog/digital/ SDI/DVB /IP/ASI/TS Multiple sources and formats Allow common file format options with SD and HD resolution Allow remote access and control of the ingest workstation Shall have system and software status indicators Should be flexible for different operations Should be stable for 24/7 operation Support for standalone or automated operation User Scenarios: MCR & PCR recordings Off-Air Recorder Outside Broadcasting Recorder Specification Supported TV Formats: SD/HD, High Definitionn1080i,720P Standard Definition: NTSC,PAL Supported Codec and File Format DV,DVCPro, IMXDVCProHD,SDCAM, XDCAM HD, XDCAM HD422, MPEG2 LONG GOP,MPEG2 up to 10801 422AVC Intra, H.264, MXFOP1a, MXFOpAton & MXF AS-02,AS-03 AS-11			
23.1	Metal rack The metal rack shall have a perforated swing door at the front and back, it must be at least 45-RU equipped with dual power strip circuit breakers and earth-grounding termination, rack mounts, dual electrical power strips with top-rack Fan blowers, and must have individual current monitoring in each center top of rack to monitor the current load of each rack.	6		
23.2	Rack PDU status of the power supply at all times. The PDU outlet must be at least 10 outlets per strip (x2) for main power and backup power and of high quality.	12		
24	Furniture (2x) 2 Position Console, 2x Single Position Console, 6 Swivel Chairs	1 lot		
25	Under raised floor cable tray The bidder should provide cable tray made of either metal or hard plastic it must be closed all sides to prevent rotten bites of the cables inlet and outlet shall have brush guard. Please refer to the sample layout.	1 lot		
26	Installation materials Gigabit router, gigabit switch, Network router, network switch materials must be High quality and high efficiency products came from globally known brand it shall be rack mounted. (Quantity of units/pieces/ports is discretion of the system integrator but it shall be all are rack mounted). Audio cables, coaxial cables UTP/Ethernet cables must be from globally known manufacturer. cable tie, cable management marker, Software, Hardware and all other installation materials must be high quality. Note: Winning Bidder/System Integrator are not allowed to pull out/takeout all excess installation materials including tools, test instruments. All left-over installation materials are considered as PCO property.	1 lot		
27	Electrical Installations Electrical works for this particular project are the following: Winning Bidder/System Integrator shall provide and install electrical wiring from PCO provided main electrical supply panel going to racks, console tables, and all other areas where the bidder will install the supplied equipment.	3		
28.1	Operation Manual Hard Copy 3 copies (1 copy for engineering, 1 copy for end user/operator and 1 copy for PCO central engineering office)	3		
28.2	Service Maintenance Manual Hard Copy 3 copies (1 copy for engineering, 1 copy for end user/operator and 1 copy for PCO central engineering office)	3		
28.3	Operation and Service Maintenance Manual Soft Copy (flash drive) 3 copies (1 copy for engineering, 1 copy for end user/operator and 1 copy for PCO central engineering office)	3		

29	Integration & Service Integration and Service,	1 lot		
30	Commissioning & Training	1 lot		
31	Technical Support 1 year On-site Technical support (see 2.2.1.1 and 2.2.1.2 of TOR)	1 lot		
32	Storage/Warehouse Winning Bidder/System Integrator must secure storage or warehouse suited to their supplied equipment at VMH. PCO will not held responsible to any damage, loss of their supplied equipment during installation to final acceptance.			

ANNEX “A”
TERMS OF REFERENCE

Project details:	The Visayas Media Hub (VMH) will house the Communications arm of the government in the Central Philippines and will cater to tailor-fitted news and information for its regions. The project will complete the triumvirate of the Main Government Broadcast hubs in Luzon, Visayas, and Mindanao. Having a centralized and integrated facility for government media entities will ensure close coordination among themselves which in turn will result in reaching wider and more effective information dissemination for the Visayas region. With its modern high-definition equipment, the VMH will serve as the central broadcast source of the government serving different regions in the Visayas. It will also serve as a disaster recovery broadcast center for nationwide television coverage. The Office of the President - Presidential Communications Office (OP-PCO) will take the lead in managing and maintaining the facility. Much like the Mindanao Media Hub in Davao City, the VMH will also house field offices of OP-PCO attached agencies/government media such as the People's Television Network, Inc. (PTNI), Bureau of Broadcast Services (BBS), Philippine Information Agency (PIA), Philippine News Agency (PNA), and Radio Television Malacañang (RTVM). Further, there will be allotted offices for the following agencies: (1) Department of Information and Communication Technology, (2) Bureau of Communications Services, (3) National Printing Office, APO Production, Inc., among others.
Part XII:	**Supply, Delivery, Installation, Supervision, Integration, Training, Testing and Commissioning of a Technical Broadcast Operation Center (TBOC), Master Control (MC), Playout Automation System, File Based/Base Band Ingest Station, Media Asset Management System (MAMS) and Deep Archive Solutions and Complete Audio/Video/Data System and Operation Workflow of the High-Definition Technical Operation Center for the Visayas Media Hub (VMH) (Procurement/Contract No. 2023-PCO-112)**
ABC:	**Seventy-Three Million Four Hundred Thirty-Three Thousand Nine Hundred Forty Pesos (PHP 73,433,940.00)**
Objective	To provide a Technical Broadcast Operation Center (TBOC) in the Visayas Media Hub with modernized digital audio and video equipment/systems for content/program productions, contributions and distributions in the reagion and nationwide.

The equipment and accessories to be procured will be used to enhance the capabilities of the government to disseminate information through the production of programs and contents for the Filipino people, featuring the activities of the Presidency and the entire Government.

1. GENERAL REQUIREMENTS

1.1 Payment Terms: Best Payment Terms as allowed under R.A.9184 in Philippine Pesos

1.2 Delivery Period: One Hundred and Fifty (150) calendar days for Delivery, Integration, Installation, Training, Commissioning and Final Acceptance from the receipt of Notice to Proceed (NTP). PCO-Project Management Office (PMO) will schedule the date of inspection 90 calendar days after site turn-over to the Winning Bidder/System Integrator. The completion of deliveries will be divided as follows:

1.2.1-Completion of equipment delivery is 90 calendar days from site turn-over and notice to proceed.

1.2.2- Installation to final commissioning and acceptance is 60 days after inspection of deliveries.

1.2.3- PCO will only inspect and accept full or bulk delivery of equipment. All requests for delivery extension will not be approved.

1.2.3- Inspection of delivered equipment will be done VMH.

1.3 Project Inclusion;

1.3.1 TBOC Audio/Video, equipment and facilities
1.3.2 On-Air Master Control and Playout equipment and facilities
1.3.3 Ingest Server and stations
1.3.4 Media Asset Management System
1.3.5 Deep Archive
1.3.6 Electrical Wiring
1.3.7 Console table, racks, and furniture's
1.3.8 Installations, integration, training, and commissioning

1.4 Price inclusions:

1.4.1 Cost of equipment to include shipment, and Government Taxes
1.4.2 TOC Audio/Video, facilities
1.4.3 On-Air Master Control Facilities
1.4.4 Ingest Server and station
1.4.5 Media Asset Management System
1.4.6 Deep Archive
1.4.7 Installation materials and services
1.4.8 On-site support Engineer for One (1) year
1.4.9 Electrical Wiring
1.4.10 Console table, racks, and furniture

1.5 Cost of Warranties

1.5.1 Warranty on Equipment
1.5.2 Warranty on Installation Workmanship
1.5.3 Equipment Installation, Integration, Testing and Commissioning
1.5.4 Training Services (On site)
1.5.5 Equipment Operation, Equipment Maintenance and Repair

1.6 Installation site:

Visayas Media Hub

Wireless, Brgy. Subangdaku
Mandaue City, Cebu
Philippines

2. SUPPLIER/DEALER ELIGIBILITY REQUIREMENTS

2.1 LEGAL DOCUMENTS

2.1.1 Government Permits and Clearances (as stated in the Platinum membership of Philgeps Registration

Note: The above legal requirements are in addition to the legal requirements under R.A. 9184

2.2 TECHNICAL DOCUMENTS

2.2.1 Track Record Certifications

ALL OF THE ITEMS BELOW ARE TO BE INCLUDED IN THE BID DOCUMENT THAT WILL BE SUBMITTED. ***NON SUBMISSION OF ANY OF THE ITEMS WILL BE A CAUSE FOR DISQUALIFICATION.***

2.2.1.1 The bidder must show proof of its after sales support with capability and expertise in the installation/integration, testing, troubleshooting, and diagnostic, repair and maintenance of TBOC.

2.2.1.2 The bidder must submit a Certificate of Acceptance for the similar project. The bidder must submit the company, complete address, pictures, and contact person of recently delivered the same project. Similar Project for this purpose is Supply, Delivery, Installation, Integration, Training and Commissioning of TOC with Automation System, MCR with Ingest System.
The bidder.

2.2.1.3 Certification from the bidder that the assigned personnel on-site has the training, capability and expertise in the installation/integration, testing, troubleshooting, diagnostic, repair and maintenance of various broadcast equipment used for TOC System, MCR system, Ingest Station, MAMS and Archive for broadcast television. The bidder must submit the names and qualifications of the assigned engineer/s and/or technician/s who will report on site during office hour for the one year warranty period.

2.3 PROOF OF CONCEPT OF TENDER

2.3.1. The bidder shall present, discuss and explain in detail the Technical Proposal through a power point presentation or an AVP. This presentation shall only be made after passing the Eligibility and Financial requirements under R.A. 9184. This will be done during the *Post Qualification*. The presentation must be in 3D, setup and total look of TOC/MC, racks MV monitors.

GENERAL INSTRUCTION TO BIDDER

The technical specifications are intended to cover the complete detailed design, supply, delivery, installation, integration, testing and commissioning of the supplied equipment and systems. The Winning Bidder/System Integrator shall be a specialist broadcast engineering system integrator and has its own product sources, manpower, test instruments, expertise and experience.

Notwithstanding, the detailed information contained in the tender document, it shall be the responsibility of the Bidder to supply and install a complete working system. Any additional equipment, interface modules or cards or wiring needed in order to meet the requirements, *even if not specifically mentioned herein or on the drawings and attached document*, shall be supplied and installed by the Winning Bidder/System Integrator without claim for additional payment.

The Bidder shall submit documents with the same format arrangement and order, based on the Bid Documents published by the Procuring Entity for the fast and easy evaluation and Inspection of the Procuring Entity Authority. Every item/equipment specification shall be supported of clear colored pictures (front and back) panel. Every item/equipment with required accessories shall be defined and itemized and also supported by clear and colored pictures Bidder shall provide two (2) colored copy of the provided brochure. Required specification shall be highlighted in the provided brochure.
Example:
Required video format is 1920x1080i
Video format listed in the equipment brochure
1920x1080p
1920x1080i
720p
525/625
480
Etc.
1920x1080i shall be highlighted.

GENERAL TECHNICAL REQUIREMENTS

A.1. Equipment shall meet relevant EU electrical safety regulations, Electro-Magnetic Compatibility (EMC) regulations or equivalent. Whereas appropriate equipment shall be fitted with 3 pin plug (2 flat pins and round earth).
A.2. All equipment provided in the tender shall have a voltage input of 110-220VAC +/- 10%, 60Hz +/- 2Hz.
A.3. All modular equipment shall be Hot-Swappable including power supplies and hard drives.
A.4. All hardware system must be highly available (no single point of failure). Bidder shall state all redundancy implemented on the system.
A.5. All system configuration and setting can be back-upped on a removable media (ex. hard disk or flash drive, memory card etc.) that can be easily uploaded or restored in case of a total system failure.
A.6. All Video related equipment shall be of NTSC standard with full High Definition @ 1920H x 1080V 4:2:2 and 4:2:0.
A.7. The final output of MCR/TOC before being fed to the transmission facilities shall be equipped with stand-alone Audio Loudness Control (ALC) and Audio/Video Processing.
A.8. Bidder shall state the space allocation requirement of the offered system with its maximum expansion taken into consideration.
A.9. Preferably all supplied equipment must be 19" rack-mountable. All equipment smaller than a 19-inch rack unit size must put in the 19-inch rack frame.
A.10. All interfaces (I/O ports) for major equipment should be BNC for Video and XLR type for audio unless specified.

B. General Considerations

B.1. MAMS System, House Codec, Graphics System, News Room Computer System (NRCS), NLE Systems and Inter-Communication System of this project also shall be integrated together as a system. TV Stations (e.g. PTV-4 Manila) and Visaya's Media hub can exchange content via FTP protocol (provided there's an underlying network link between the two sites.
B.2. Media Assets Management System (MAMS) – must be inter-operable in terms of user interfaces, searching, cataloging, file naming convention, system workflow for archiving and restoring of media files, search, store, and restore media files to storage and servers.
B.3. All third-party software/Hardware shall be provided by the bidder for this purpose.
B.4. Bidder shall state all 3rd party equipment in the bid proposal as optional item.
B.5. All (necessary) equipment accessories shall be provided by the winning bidder.

B.6. As soon as the work is commenced, the Winning Bidder/System Integrator shall start working in close cooperation with the other System Integrators enabling all necessary cable trays to be installed on time for the cabling and wiring works.

B.7. The Winning Bidder/System Integrator shall cooperate and work together to all other Winning Bidder/System Integrators that will work simultaneously at the site.

B.8. Bidders shall adhere to the following:

B.8.1. Bidders must submit a list of engineers and technicians who will be working in

B.8.2. They should be provided with IDs and uniforms.

B.8.3. Bidder must provide security personnel for their own equipment inside the building.

C. Maintenance and Support

C.1. Any hardware that fails during the warranty period shall be replaced by the supplier at their expense.

C.2. All hardware and software provided by the Bidder/Supplier shall have a minimum warranty of 12 months respectively from the date of commissioning.

C.3. All stations mentioned in the scope of work shall have an admin interface for managing systems. (This system is defined in item 20 of the schedule of requirement and detailed technical specifications).

C.4. The Winning Bidder/System Integrator shall have a 24x7 hotline to deal with any immediate problem. Bidders and its local partners shall have a telephone response time of a maximum of 30 minutes from the point the incident was reported and with on-site technical support within the same period.

C.5. The entire system shall have a remote access capability either through dial-up, VPN or any network connection (internet) for system management, monitoring and remote trouble shooting. The SNMP shall be accessed/controlled/manipulated of PCO in Manila.

C.6. Customer-replaceable components, ex. disk drives, power supplies, optical transceivers, etc. must be carried out without introducing system downtime.

C.6.1. The bidder shall provide a means to backup and restore all configuration data (settings or files) running in the system for fast system recovery when required.

C.6.2. Failure of any client application software shall not bring down the whole system. Data shall not be lost during failure of any application software running on the client.

C.6.3. The bidder shall detail any built-in security features provided to safeguard the system against virus and other forms of malicious attacks.

C.6.4. The database system for content (audio, video and metadata) management shall be of enterprise class and it shall be mirrored with a hot fail-over.

C.7. All hardware and software including third party with redundancy supplied equipment shall have no downtime during maintenance procedure. Bidder shall state maintenance procedures or solutions to prevent downtime.

D. Installation Materials, Cables and Wiring Code

D.1. All cables, other installation materials and tools required for the successful installation of the systems and equipment shall be supplied by the system integrator.

D.2. Cables and connectors shall be of high quality and from respectable manufacturers. Unbranded products shall not be accepted.

D.3. For distances of less than 100 meters, copper cable can be used. But for distances of more than 100 meters, fiber optic cable must be used.

D.4. The Winning Bidder/System Integrator shall submit samples of all the cables and connectors offered together with their specifications for the Procuring Entity's approval before installation.

D.5. The Winning Bidder/System Integrator shall ensure that all the cables are grouped and laid properly and neatly according to the signals being carried. Separate groups shall be formed for power cables, control cables, video cables, low level audio or microphone cables, high level or line level audio cables, intercommunications cables, LAN cables, fiber optic cables and speaker cables. Inter-rack cable connection to equipment must be laid in that manner (see attached picture)



D.6. All cables, especially those at the racks, shall be arranged in a tidy and orderly manner.

D.7. All cabling and wiring shall have a proper coding system, which will be provided by PCO to standardize the cable color coding.

D.8. A properly and correctly documented cable schedule shall be supplied on a standard software package after the completion of the installation. Two sets of the final cable schedule shall be supplied in a properly bound volume.

D.9. All installation materials left after completion of the project will remain as PCO property and shall not brought out by the Winning Bidder/System Integrator.

D.10. The Winning Bidder/System Integrator shall closely supervise the installation to ensure that all cabling within the rack is so arranged that the equipment is easily and conveniently serviceable in such a way that it shall be possible to disconnect and remove any equipment without disturbing the cable looms within the rack.

D.11. Ocular Inspection: All bidders are required to do ocular/site inspection. PCO will provide certifications for those bidders who conducted ocular inspection. PCO will provide a schedule for the ocular inspection.

D.12. Fiber Optic Cable and Digital HD Video Cable Link

D.12.1. All fiber optic cables must be insulated with a GI pipe of appropriate diameter. (It is a must to avoid rodent bites.)

D.12.2. The Winning Bidder/System Integrator must lay all fiber optic cable links from TOC/MCR to all connected rooms such as but not limited to the stations stated in the scope of work. The bidder should visit the site for actual measuring.

E. Cable Trays

E.1. All cable trays between functional rooms will be supplied by the System Integrator.

E.2. On their proposals, the Winning Bidder/System Integrator shall advise all special requirement and precaution applicable.

E.3. For the wiring and cabling between the Winning Bidder/System Integrator installed or supplied systems or equipment, the Winning Bidder/System Integrator shall supply and install necessary wire ways, cable trays and conduits.

E.4. All cable trays shall have brush type cover to all in and out portions and shall have coverings.

E.5. Cable trays shall be made of hard metal.

F. Equipment Racks

All Equipment Racks shall be supplied and installed by the Winning Bidder/System Integrator of above-mentioned Project and be placed at the Central Equipment rack.

F.1. All modular/cards must be housed in a compact and quiet/noise free frame. The frame must have an intelligent fan cooling system located at the front for air intake and "at the back" (if available for exhaust fan) and must come with a redundant power supply.
F.2. All equipment from 3-RU and above must be supported by metal rack trays, and the 2-RU and below must be supported by angular metal rack trays.
F.3. All equipment below 19" standard rack size must be supplied with metal frames (i.e. half rack size or below) and also supported by angular metal rack trays.
F.4. The equipment rack must have proper ventilation and cooling fan for proper air flow.
F.5. All metal racks must have individual built-in high-grade circuit breaker and at least 2pcs. Of three (3) pronged A.C. outlet on the front base of the rack, to serve as utility/maintenance outlet.
F.6. Every rack should have a bus bar grounding for individual equipment (1" x ¼" copper or better specs).
F.7. Each rack shall have a Rack Load Current (I) Monitoring System to determine the health and status of the power supply at all times.
F.7.1. This is to monitor the load current of each rack.
F.8. The metal rack shall have a perforated door swing at the back.
F.9. The power strip outlet must be at least 10 outlets per strip (x2) for main power and backup power and of high quality.
F.10. All metal racks should have a proper grounding system and grounding slot bar for individual equipment grounding.
F.11. All Audio, Video and Ethernet cables for Data and Audio Communication should be laid in the metal racks separately.
F.12. Heavy equipment shall be supported by chassis supports, trays or sliders. Any equipment, which has controls via the top, shall be mounted on suitable runners and the cable looms sufficiently flexible and long to enable the unit to be pulled out without damaging the cable ties.
F.13. At least spaces of 1-RU height will be provided between equipment, which generates considerable amount of heat.
F.14. Any vacant spaces in the racks will be covered with perforated, which shall have the same color finish as the rack frame.
F.15. Each rack will be equipped with ground bars and power outlets from both power supply sources.

G. Audio, Video, Data Connections

Detailed information on cable scheduling and video patch panels' designation strips indicating both inputs and outputs are to be submitted, 5 days prior the onsite installation)

H. Audio/Video Jack Fields

Detailed information on cable scheduling and audio/video patch panels' designation strips indicating both inputs and outputs are to be submitted, 5 days prior the onsite installation)

Networking

H.1. All plugs and sockets employed in the networking equipment shall be shielded RJ45 with boots protection and CAT6 cable. Before installation of all RJ45 connectors and other connectors, jacks or terminals, the Winning Bidder/System Integrator shall submit samples and obtain the Procuring Entity's written approval.
H.2. In case of utilizing other networking types, such as Fiber Channel (FC) network, Infinite Band network, 10 Gigabit Ethernet network, etc., connectors, adaptors and cables are to be of highest standard.

I. Completeness of Equipment Offered

I.1. The Winning Bidder/System Integrator shall be responsible for the supply of equipment and installation work's full and complete functional systems. Any item which may have been omitted or

misidentified or their quantity miscalculated in the Schedule of Equipment and Prices, but which are subsequently found to be necessary for the completeness of the system shall be supplied, installed and paid by the Winning Bidder/System Integrator.

I.2. The Winning Bidder/System Integrator shall include in their proposals the complete specification, brand and model of all the equipment which they intend to supply. Any supplied equipment which is not specified or ambiguously described on the proposals shall not be installed without the Procuring Entity's written permission. Such equipment shall be solely of the Company's free choice, together with relevant options and features. The Winning Bidder/System Integrator shall comply with such Procuring Entity's selection without claim for any additional charge.

I.3. All the equipment and accessories, which are required to meet this Technical Requirement, shall be offered and itemized in the Schedule of Equipment and the Schedule of Prices by tenderers.

I.4. For the equipment or item manufactured with manufacturer recommended options, options offered and options which are not included shall be clearly stipulated on the Schedule of Equipment and the Schedule of Prices under the respective equipment or item. Otherwise, it is agreed that the Procuring Entity has the right to freely select any options, as deemed fit.

I.5. Options and alternatives offered shall be listed in the Schedule of Equipment and Schedule of Prices. The Procuring Entity has the right to select items from the list of optional and alternative items, as deemed fit.

J. Manuals

a) Before the completion of the supplied equipment installation, three (3) sets of original manuals shall be supplied with each major piece of equipment. The manuals shall be in hard copy, written in English and shall contain all diagrams, explanations, setup and operational procedures, full detailed service procedures, performance characteristics and a complete list of all components with reference numbers. Two (2) sets of soft copies of the manuals shall also be submitted to the Procuring Entity at the same time. If more copies of the manuals are required for the training, the Winning Bidder/System Integrator shall promptly supply them without right or entitling for extra charge.

b) Include a Table of Contents of the Bid Tender.

c) Enclose one (1) blank sheet with index tab for every set of brochure.

K. As-Built Drawings

Upon acceptance of the installation, the Winning bidder shall submit three (3) complete sets of as-built drawings, which shall include block and schematic diagrams, cable schedule, equipment layout and all works, which have been carried out and completed. Two (2) sets of soft copy of the complete set shall also be submitted to the Procuring Entity. Soft copies should be in pdf and Visio/cad/dwg formats.

L. Commissioning and Acceptance Tests

L.1. The successful commissioning and acceptance tests of all the equipment and systems shall be performed by the Winning Bidder/System Integrator's Testing & Commissioning Engineers in the presence of the Procuring Entity's representatives.

L.2. The Winning Bidder/System Integrator shall ensure proper test equipment required for the tests are made available. These should include at least, but not limited to Multi meters, Audio Test and Measurement Units, Video Test Signal Generators, Oscilloscopes, Waveform/Vector scopes capable of measuring both digital and analogue systems. However, the Winning Bidder/System Integrator may use any of the test equipment that is supplied as part of this tender.

L.3. The Winning Bidder/System Integrator shall submit the proposed test procedures and formats to the Procuring Entity at least four (4) weeks before the commencement of acceptance tests. The document will be revised and amended as deemed suitable. The test procedures shall include parameters for full functionality tests for all equipment items and performance tests for video and audio systems. The test procedures shall include continuous actual day-to-day operation of the supplied systems and equipment for at least one calendar month period without any defect. If there is a defect found, this "continuous actual day-to-day operation" part of the test procedure shall re-start after the defect is amended.

L.4. After the successful completion of the acceptance tests, The Winning Bidder/System Integrator shall submit two (2) sets of the test results in properly bound volumes to Procuring Entity.

L.5. After the successful completion of the acceptance tests, the commissioning engineers shall continue to standby on site for a continuous period of Twelve (12) months.

M. Training

M.1. The Winning Bidder/System Integrator shall undertake to provide comprehensive training for the Procuring Entity's staff who will be involved in the operation of the supplied or installed systems and equipment.

M.2. The training shall cover all the aspects of daily operation, maintenance procedures and troubleshooting. The training program shall include on-site training on the actual supplied systems and equipment. The training programs must result efficient day-to-day operation of the supplied systems and equipment by solely the Procuring Entity's staff.

M.3. For major systems and equipment including the MAM System, Automation System, Monitoring & Control System, etc., experienced engineers or trainers from the respective manufacturers or suppliers shall be utilized to conduct the training program.

M.4. All trainers shall be clear and fluent in spoken and written English. *(Trainers with soft voice, speed spoken, omitted words and unclear English pronunciations are not acceptable).*

M.5. The training programs shall be able to start in progressive steps within one calendar month after the Winning Bidder/System Integrator commences the work. During the first stage of the training programs, the Winning Bidder/System Integrator shall include simulation operation on sufficient quantity of training-aid apparatus units which is equivalent to the supplied systems and equipment. The Winning Bidder/System Integrator shall be solely responsible for the supply of the training-aid apparatus.

M.6. It is preferable that the training programs take place in VMH where the Winning Bidder/System Integrator will setup the training rooms, modules, big screen and power point or sketch up format presentation, the tenderers may include overseas training programs (equipment which may need factory training (video server & automation system, etc.). The costs for overseas training shall be included in the Schedules of Prices with detailed breakdowns enabling broad flexibility.

N. Warranty

All the equipment shall have a warranty period of at least one (1) year from the date of final acceptance of the equipment and system. If there is any defect found during the warranty period, the Winning Bidder/System Integrator shall rectify the problem within hours. In the situation which requires the replacement of any spare parts/modules or equipment, such rectification shall be completed by the Winning Bidder/System Integrator within twenty-five (25) Calendar Days of the first notification from Procuring Entity.

During the warranty period, the Winning Bidder/System Integrator shall provide the Procuring Entity all necessary preventive maintenance, defect (or problem) rectification and software updates without charge.

O. After Sales Service

Tenderers shall submit full details of the after sales service after the warranty inclusive of detailed preventive maintenance procedures for the proposed systems and equipment which are to be installed. These details shall consist of each and every maintenance program required. The details shall include recommended spare parts and spare equipment with comprehensive itemized price list, license fees if any, etc. The tenderers shall recommend the expected replacement frequency of such spare part and spare equipment in conjunction with maintenance service fees and all other fees and produce one comprehensive maintenance financial plan.

A. TOC TECHNICAL MONITORING SYSTEM

A.1. The OLED display monitor must be installed with metal mounting frame.

A.2. The OLED monitor must be fitted to a 19" rack size rack mounted including metal frame.

A.3. The OLED monitor must be installed in the (console) at eye level (5 feet, six inches at the center of display).

A.4. The Waveform monitor must be installed in the console subrack

A.5. The Remote Control Panel (RCP) of the routing switcher must be in the console subrack

A.6. The Waveform Monitor Output must be connected to the following:

- OLED Monitor C.A.R.
- OLED TOC supervisor desk.

A.7. **Multi-viewer**

A.7.1. Multi-viewer must be installed at the equipment rack.

A.7.2. Multi-viewer outputs must be wired using HDMI or SDI Coaxial Cable.

A.7.3. It shall have integrated audio monitoring capabilities — with onscreen meters and alarm features.

A.7.4. It shall have a bundled software for layout design that is easy-to-use.

A.7.5. It shall be capable of decoding aspect ratio data (AFD or WSS) to display sources correctly onscreen.

A.7.6. It shall be capable of monitoring numerous video faults such as loss, freeze, and black, etc.

A.7.7. It shall be capable of monitoring numerous audio faults such as silence, clipping or over level.

A.7.8. It shall be capable of configurable response options including onscreen notification, SNMP messaging and GPI trigger.

A.7.9. It shall be capable of direct communication with the A/V router to display source and/or destination names for each input.

A.7.10. It shall be capable of displaying multiple-clocks in different formats, with options to sync to LTC, NTP or PC time sources. It shall be capable of D-VITC decoding for display of embedded time code on video

A.7.11. The Multi-viewer Display monitor should be from a reputable brand and has broadcast/industrial grade LED display and it must be viewable in all angles.

A.7.12. All input sources in the multi-viewer display must have an audio level monitor placed at the right side, and should have Under Monitor Display (UMD) at the bottom of the individual display. The bidder should specify the UMD in every source.

A.7.13. The LED display for the multi-viewer must be installed and mounted in front of the Master Control Switcher and TV Master with reference to the actual design.

B. Central Router

B.1.1. The Central Router shall be configured for atleast 72x72 I/O card.

B.1.2. It shall be expandable I/O frame for future expansion.

B.1.3. It shall have the capability for mixed-signal routing (HD, SD, 3 Gb/s)

B.1.4. It shall have independent signal paths and cross points for video.

B.1.5. Power supply shall be fully redundant.

B.1.6. It shall have modular, hot-swappable I/O cards for scalability.

B.1.7. Bidder must wire from the core router to the specific destinations such as: MCR, Ingest and other sections/divisions as part of the operation within the turn-key project.

B.1.8. The Routing Switcher should have full control by the automation software and manual control.

B.2. The Router Control System shall support the following operations:

B.2.1. Single-bus operation

B.2.2. Multi-bus operation

B.2.3. X/Y operation

C. Compliance Recorder

C.1. Compliance recording system can hold up to (1) month 24/7 continuous recording and has the ability to increase the bit rate and shall have loop recording after reaching 800 hours (1 month) in which the first file recorded will automatically be over-written. It shall be capable to externalize the recorded material for legal or any purposes through advice of proper authority.

D. Master clock

D.1. Switches analog black burst, HD tri-level sync, AES/DARS, word clock, LTC, as well as SD/HD/3G-SDI signals - all the timing and synchronization signals required in modern broadcast, production, and post production facilities.
Dual hot-swappable power supplies ensure continuous availability of reference signals and easy to manage with web-based interface for configuration and SNMP for status and alert information front panel LED fault indicators for each individual channel as well as the status of the power supplies.

D.2. The Winning Bidder/System Integrator shall be responsible in installing the GPS antenna at the roof deck of the building and ensure that it receives the correct satellite signal that will be the reference of the Master Clock and Time Code Generator.

D.3. The Network Time Protocol (NTP) must be synchronizing all slave clocks and computer clock.

E. MASTER CONTROL SYSTEM

Integrated Master Control System capable of operating in a software touchscreen master system **or** a hardware control panel. The system manages the manual and automated switching of video from remote sources through central router, playout server with graphics automation capabilities with a simple touch of the screen in a single and multichannel environment. Advance user interface that bring efficiencies to master control system. The master control system should be controlled by a known broadcast automation technology/system presently in the market.

E.1. The Master Control Console and monitoring set should refer to the proposed plan as minimum requirements.

E.2. All necessary work station should be in place at the Master Control console such as:

E.2.1. The Router Master Control, Graphics Control, Channel Branding and Play-out Control, the 24 buttons remote control panel of routing switcher serves as emergency bypass if Master Control Switcher (MCS) malfunction, it should place in front of Audio/Video switcher and the standalone switcher.

E.3. Master Control A/V Switcher Wiring Configuration

No.	Input	Output
1	Studio-1	(2-Out) Program/CLN output (BNC)
2	Studio-2	(2-Out) Program/CLN output (BNC)
3	Play out Server 1	
4	Play out Server 2 (provision)	
5	Remote Signal-1	
6	Remote Signal-2	

F. Integrated Master Control Playout Server (with Graphics)

F.1. The Master Control Playout Servers shall be fully redundant.

F.2. Two (2) unit playout servers with two (2) channel 1+1 redundancy. Each playout server should have two (2) program output ports. Playout central storage shall require handling the content of at least sixty (60) days program with full HD AVC-Intra 50/100Mb/s 1920x1080i 4:2:0/4:2:2 and 16x9 aspect ratios format. It shall have a separate clean feed output program for re-purposes.

F.3. The play out server shall be supported with variable and fixed time schedule.

F.4. It shall work with a wide range of automation, archiving, and media management applications.

F.5. It shall have playout automation redundancy
F.6. It shall require having offline playlist creation. Playlist import should be possible either – manual import or automatic through watch folder.
F.7. The play-out server shall have integration with the traffic management system to import the playlist and to export the as-run log for reconciliation.
F.8. The application and operation shall be user friendly.
F.9. The play out server shall have graphics overlay including animations, rolls & crawls, clocks and stills created internally while doing the play out. It shall have DVE capability (2D DVEs) and can be triggered by automation system.
F.10. The system shall open to all latest/modern known broadcast graphics format including 2D & 3D animation logos.
F.11. Each playout channel shall be capable of playback of SD (525i) or HD (1080i, 1080p, 720p) content.
F.12. It shall support various video formats for playback. (TV house codec must be primary codec).
F.13. Playout shall be embedded SDI.
F.14. It shall be capable of Closed Captioning and Subtitling (option).
F.15. It shall be capable of Aspect Ratio Conversion (ARC).
F.16. It shall be capable of Active Format Description (AFD) detection.
F.17. It shall be capable of Loudness Control.
F.18. It shall be capable of IP input/output (SMPTE 2022-6/MPEG TS)
F.19. It should be capable of Nielsen Audience Measurement (option).
F.20. It shall have dual hot-swappable power supplies.
F.21. It shall have redundant Ethernet switch support.
F.22. It shall be capable of audio mapping, shuffle and level control.

G. MCR On-Air Automation System

G.1. The On-Air Automation system will be responsible for playing out the content required for the playout channels, consisting of On-Air Video Server, Master Control Switcher and Router, etc. The Automation System will manage run down of programs, promotes and other materials. The Automation System with hot backup is to be used for one channel. The channel also has dedicated upload / ingest workstation for the media server. Video playout server will be controlled by automation, as well as provide manual override.

G.2. This turnkey project should be expandable; the VMH will add/adopt new system, hardware and software after years for future expansion and as need arises. The Procuring Entity will forcedly advice the bidder to provide/deliver/integrate TOP OF THE LINE and HIGH-QUALITY equipment, hardware and software Including the design of highly competitive and most effective workflows (like other reputable TV stations worldwide).

G.3. Redundant –defined as physical redundant (1+1) mirroring. Redundant program/software shall have individual license.

G.4. Clients/Users will access the system by using their Alphanumeric (VMH will prefer a "BIOMETRIC") password for all clients/users. In case the client/user will make a deletion of files, changes and/or modification of all metadata, system parameters, and system work flows, he system will ask a finalization from the immediate supervisor of the client/user by entering the supervisor password to avoid the intentional and non-intentional deletion of files, changes and/or modification of all metadata, system parameters and system work flows.

G.5. The entire system and workflow should support a homogenous network (A network of computers which have all been made by the same manufacturer).

G.6. On-Air Video Server System

- G.6.1. Supported formats: H.264, AVC-HD, DVCPRO 50/100, AVC-Intra 50/100, MPEG2 Supports SD/HD-SDI and AES, analog audio embedded interfaces.
- G.6.2. Scalable I/O and share storage.
- G.6.3. Supports RAID Drive .
- G.6.4. Redundant hot-swappable power supplies.
- G.6.5. Works with a wide range of automation, archiving, and media management applications.
- G.6.6. Back-to-back playback of clips of different formats.
- G.6.7. Playback of SD and HD clips on the same timeline.
- G.6.8. Integrated up/down conversion.

H. File Base Quality Control manager

H.1. The Winning Bidder/System Integrator shall provide a Centralized Quality Control and Monitoring for the following stations:

- H.1.1. All file being ingested should passes Quality Control.
- H.1.2. Material going to play list (On-Air) shall pass Quality Control.

H.2. Quality Control for Video Files

- H.2.1. Video codec
- H.2.2. Bit rate
- H.2.3. Aspect Ratio
- H.2.4. Video Format

H.2.5. Color Sample
H.2.6. Resolution
H.2.7. Audio/Video Lip Sync
H.2.8. Corrupted material
H.2.9. And other recommended components of Video that need to pass the Quality Control

H.3. Quality Control for Audio Files
H.3.1. Audio Format
H.3.2. Bit Rate
H.3.3. Absence of audio
H.3.4. Low level and over shoot
H.3.5. Audio Peak Level
H.3.6. Active Channel
H.3.7. Corrupted Material
H.3.8. A/V Lip Sync
H.3.9. And other recommended components of audio that need to pass the Quality Control

A. Ingest System

A.1. Ingest server should support content acquisition from videos from live feeds, router & file based video material.
A.2. It is required to create proxy low-res file during the ingest process.
A.3. Ingest system should allow the ingest operator to enter the metadata during the ingest process. Metadata fields could be camera, person, location, etc. The time and date of creation will be automatically base on the actual date and time of the house clock. If required, these metadata field shall be modifiable by the Metadata administrator or Archivist/Librarian.
A.4. It is required to have integration with MAM system, to transfer the metadata – both user level and clip level.
A.5. Ingest client shall have the option to search the content and browse (proxy) as required.
A.6. For certain clips, it is required to trim the clip and create sub-clips as required by defining mark-in and mark-out.
A.7. It is a must to have batch recording for tape ingest.
A.8. It is required to have record scheduler to ingest various router feeds.
A.9. Ingest server hardware must have redundant power supply (the backup power supply should be on sleep mode when not working to save the life span of the backup power supply).
A.10. Support ingest of 3G, HD, SD-SDI Content for baseband.
A.11. Support open standards such as MXF and other globally known wrapper.
A.12. Support ingest of content in file/data format.
A.13. Support file based ingest. Supported formats: H.264, AVC-HD, DVCPRO 50/100, AVC-Intra 50/100, MPEG2 Supports SD/HD-SDI and AES, analog audio embedded interfaces
A.14. Support FTP mode of ingest transfer, if not supported, Tenderer shall state supported protocol used in transferring.
A.15. File Ingest should have status notification or progress of file transfer.
A.16. The option to preserve file metadata such as time and date when the file was created should be available.
A.17. Operational Requirements
A.17.1. Capable of automatic/scheduled and manual ingest.
A.17.2. Ingest system shall be frame accurate.
A.17.3. All ingest/record ports shall have a confidence playback.

A.17.4. Ingest system can control sources such as VTR/Player, File based player deck such as but not limited to P2 and SXS and router destination. Bidder shall state protocol and medium used to control devices.
A.17.5. A single (expandable) channel ingest station for recording and playout.
A.17.6. Capable of monitoring all ingest record channel.
A.17.7. While materials are ongoing recording, it shall immediately be copied to the transcoder for browsing and Hi-Res. Bidder shall state recommended buffer time in seconds before content copy is initiated to its destination.
A.17.8. All ingest channels and resources should be accessible based on user privileged and rights.

MEDIA ASSET MANAGEMENT

The ultimate goal for a Media Asset Management System is to effectively manage the media assets, and generate more frequent and higher returns from that content. It is vital to get the right content to the right device for the right objective, so it's critical to have all of the necessary tools to identify, move and repurpose the media assets.

A. GENERAL CONSIDERATIONS:

The system must be able to create a unified workflow that allows it to ingest once and maintain the asset in the digital domain for the life of the media. It must be able to access, manage and move material across any number of storage devices including multilevel storage systems. Transform media from one file format to another by incorporating a transcoder into the workflow. It must also be able to capture metadata.

The MAMS is the core of serving as Media/Data Exchange between NRCS, Playout Automation, Networking Production facilities, as well as archiving new and legacy media, such as DVC-Pro, DV, tapes, file base media, etc.

B. General Technical Specifications

B.1. All hardware system must be highly available, no single point of failure.
B.2. System Architecture must be scalable. Increased user count and content must be supported. Ability to add multiple channels at future time periods.
B.3. Asset Management System must utilize industry standard IT infrastructure and policies.
B.4. The MAMS should have a remote access capability either through dial-up, VPN or any network connection for system management, monitoring and remote trouble shooting.
B.5. The system can be integrated to different hierarchical storage management system.

C. Administrative and User Management

C.1. System shall have an administration console or an equivalent application/s to manage, administer and monitor MAMS. Task included but not limited to the following below:
  C.1.1. Core database administrative tasks (purge, index synchronization etc.)
  C.1.2. Workflow activity monitoring (ex. media transfer, ingest, cache and transcoder status)
  C.1.3. Remote configuration.
  C.1.4. Management of Storage and Resources
C.2. System shall have a user management console or equivalent application to manage and administer user rights and permissions.
C.3. System shall have strict user access controls.

C.4. System shall have the ability to design workflows specific to the organization's needs, as defined during a workflow analysis study.
C.5. Purge/Delete action of material shall support automatic and manual operation.
C.6. User rights and privileges should be applied on deleting/purging process.
C.7. Delete/Purge action shall undergo approval process.
C.8. System should have configurable logging levels for debugging purposes.
C.9. System should log all activities in the system with human readable format.

C.10. MAMS Content and Metadata Creation
- C.10.1. Configurable metadata form and user interface.
- C.10.2. Support of English characters for metadata storage and search.
- C.10.3. Basic metadata input (including date/time stamps) able to be produced by the base system and related work processes;
- C.10.4. Database must immediately be updated for any changes or movement of content residing on all storage location.
- C.10.5. Automated metadata embedded from integration with other production or scheduling systems associated with the content workflow.
- C.10.6. Enhanced metadata options which allow for integration and/or metadata to be added after the content is ingested.
- C.10.7. Ability to add metadata to support additional itemized search.
- C.10.8. Metadata should be able to be edited or deleted.
- C.10.9. Modification or changes on any content's metadata can be done at any given time by an authorized user. Changes made on metadata shall go thru the approval process.
- C.10.10. Existing and new content from various sources can be catalogued and indexed at any given time by an authorized user.
- C.10.11. Provision for the use of metadata file wrapper.
- C.10.12. Metadata and database should be customizable.
- C.10.13. Cataloging and indexing capability with thesaurus or (other language fit in the supplied system) function.
- C.10.14. Ability to associate standard office files to a Content – including PDF, MS Office Documents and Image Files.
- C.10.15. Capable of Scene Change detection. Bidder shall state if system is capable of manual or automatic cataloging and indexing each scene change.
- C.10.16. All metadata and attributes shall be preserved when sent and retrieved from the archive System.

C.11. MAMS Operational Requirements
- C.11.1. Support desktop browsing of Content.
- C.11.2. Support of multiple concurrent browse clients.
- C.11.3. Support Segmentation of Content during or after ingest. Segmentation should not modify the physical high-resolution file.
- C.11.4. Ability to add descriptions of contents.
- C.11.5. Ability to add data from other database sources;
- C.11.6. Ability to adjust, insert or delete marks in the program associated metadata.
- C.11.7. Ability to segment Video and select key segments to repurpose.
- C.11.8. Ability to export physical media publishes, email or playout to users.

D. Low-Res Proxy Generation

D.1. Operational Requirements
- D.1.1. All materials that are ongoing recording shall immediately be copied for transcoding and have its output available for browsing.

D.1.2. Minimum requirement is AVC / H.264 (MPEG4) will be used as Low-Res browsing format, bidder can offer better format.
D.1.3. Ability to transcode content between different file formats and have the relevant original metadata remain associated with the transcoded content.

D.2. Technical Requirements
D.2.1. Full synchronization between proxy and Hi-resolution media.
D.2.2. Low-Res browsing format should be frame accurate.
D.2.3. Support Low-Res browsing video bit rate of up to at least 1024 kbps (Configurable).

D.3. Low-Resolution Editing and Browsing System
D.3.1. Capable of browsing incoming materials while it is ingested in the server.
D.3.2. Capable of browsing/previewing content located in deep archive or central archive.

D.4. Database Requirements
D.4.1. Support database mirroring to enhance database availability by setting up automatic failover to a standby server.
D.4.2. Support online restore to improve the availability of database – only the data being restored is unavailable; the rest of the database remains online and available.
D.4.3. Database server management application with the functions to develop, deploy, and troubleshooting.
D.4.4. Support database backup and restore (Manual & Automatic back-up/restore)
D.4.4.1. Database system shall support customizable backup intervals.
D.4.4.2. Database system shall support "off server" duplication of backups (added level of protection).
D.4.4.3. Local backup shall contain all metadata, content pointers, and configuration information.

E. Media Workflow
E.1. The content management system must be of feature-rich and have many successful installations around the world with major television broadcasters over the last 5 years.
E.2. System shall able to handle movement of self-contain media file format.
E.3. System shall be capable of restore or partial restore (based on time code in and out) content to any storage location (ex. Cache, staging server, TX server) in the MAMS environment.
E.4. The system shall process archive and restore requests via Application Programming Interface (API) interface.
E.5. The system shall provide users with web based client tools to manage the archive and restore of content to and from online storage or video servers and other file based servers.
E.6. Data movement should be automatically initiated based on defined workflow with option to perform manual transfer of files (Single or Batch Transfer).
E.7. All file movement or transfer can be tracked and monitored, including manually initiated movement or transfers.
E.8. A status display may be accessed to monitor all and/or individual file transfer.
E.9. System shall have a system log verifying all transaction or file transfer initiated, with all the necessary details for tracking purposes.
E.10. Material can be automatically routed to specific folder and storage location based on material code or file name.
E.11. The system has the capability of adding new storage to the system to meet increased capacity throughput requirements with no interruption in service.

F. Approval Process
F.1. Approval process shall be customizable based on the customer's workflow.
F.2. A configurable on-line approval process shall be implemented.

F.3. Approval process can be carried out on any MAMS workstation based on user rights.
F.4. Approval process shall provide immediate and transparent communications between team members (collaborative environment), ex. Information sharing, providing feedback, work approval or placing requests, etc.

G. Archiving Process
G.1. Content for archiving shall be initiated automatically based on the defined rules and workflow. Bidder shall state application use to move content from any storage location to archive.
G.2. Capable of manually archiving selected content either via single or batch archive processing. Source of content for archive may come from Video servers or any storage locations.
G.3. Various storage locations can be defined as source of material for archiving.
G.4. All content sent for archive shall have its metadata and attributes preserved.
G.5. The systems can potentially be accessed by a large number of users.

H. Searching and Retrieval
H.1. Support search of all media content on all storage locations.
H.2. Supports search, navigation, and retrieval capabilities.
H.3. Bidder shall specify maximum time taken to obtain search result.
H.4. All archiving, copying and content retrieval process will be configured to go thru the approval process.
H.5. Supports prioritization in restoring content (configurable).
H.6. Configurable Search parameters.

I. DEEP ARCHIVING is a Network Attached Storage (NAS) Solution with the optimal disk platform for the storage of mid-tier data, including primary storage offload, data staging, backup and archiving.

NETWORK ATTACHED STORAGE

Disk	The storage shall utilize the latest 12TB Enterprise SATA disk technology.
	The storage shall be expandable solution that provides raw storage capacities from 48TB to atle 10PB.
	The storage system shall be designed to work on a variety of workloads, a single solution supp three different disk drive types, including 4TB, 8TB and 12TB enterprise drives; 8TB archive driv and high-performance SSD drives
Hardware	Due to the inherent problems and complexity associated with hardware RAID controllers, Softw Parity is required/mandatory.
	The disk system shall be able to expand to over 10PB raw capacity in a single standard 42U ser rack
	That disk shall have a minimum of 1150TB raw capacity, per 4U of rack space on expansion noc
	Support intelligent rebuilding of a failed disk. Only the data portion of a failed disk should hav be rebuilt, and it should not have to rebuild all blocks on the disks.
Protection	The storage shall have Triple parity (i.e. the ability to withstand 3 hard disk failures with no los data) to protect against disk failures.
	Continuous Data checksum of every Read and Write to eliminate bit rot and undetected bit erro
	The storage spare disks shall be Global Hot Spare.

The storage shall have simple to use Web Interface.

Administration — User interface shall have performance graphs showing Network, Disk pool and CPU utiliza should be easily viewable.

User does not have to put restrictions on each volume, which would require them to be partitioned when more space is required.
The ability to setup Scheduled Snapshots is required

Replication — Support replication of data on a redundant unit configuration

Scalability — The storage shall keep up with data growth while keeping it protected, preserved and cost-effect Scale your storage affordably through expansion node architecture and maintain your exis footprint by scaling in place with higher capacity drives.

I.1. The proposed Disk Archiving shall be cost saving by consolidating storage onto an eco-efficient library that can save space and power.
I.2. The proposed disk archive must be of simplified storage management with the industry's most flexible solution for partitioning, sharing, and managing.
I.3. Disk Archive should be raid and scalable, upgradeable and interoperability.
I.4. Has advanced single-view, browser based interface thru MAMS
I.5. Hot-swappable power supplies, cooling fans, and drives
I.6. Remote access Technical Support speeds monitoring
I.7. The bidder should provide High bandwidth connection going to Deep storage Using Fiber Optic Channel.

SCHEDULE OF REQUIREMENTS

DELIVERY PERIOD: 150 CALENDAR DAYS FROM RECEIPT OF NOTICE TO PROCEED				
ITEM No.	**QTY.**	**UNITS**	**DESCRIPTIONS**	
1.1	1	unit	Core Router Frame capable for at least 72X72 HD-SDI Signal I/O Interface	
1.2	1	lot	Input : 72 3G, HD-SDI (Modular 8/16/24 input per module)	
1.3	1	lot	Output : 72 3G, HD-SDI (Modular 8/16/24 input per module)	
1.4	4	units	Re-legendable X-Y Numeric Auxiliary remote control panel with 24 source buttons and 24 destination buttons	
2.1	4	units	Multi-viewer display monitor	
2.2	1	lot	Customized frames with mounting kit and accessories (please refer to MV design).	
3	1	lot	Standalone Multi-viewer (back-up) w/ dual power supply	
4	1	unit	3G/HD/SD/SDI Waveform monitor	
5	1	unit	Technical monitor	
6.1	1	unit	GPS System	
6.2	1	unit	Time code generator	
6.3	1	unit	Test signal Generator	
7	1	unit	Master & Slave Station Clock	
8	1	Lot	Pulse & SDI Signal Distribution amplifier	
9	1	unit	Audio/Video confidence monitor	
10	1	unit	File base quality control for ingest, editing and playout server	

11	1	unit	Audio & Video processor with Audio Loudness Control	
12	1	unit	Video Processor/frame synchronizer (Dual Channel)	
13.1	1	lot	3G/HD/SD-SDI Video Patch panel	
13.2	1	lot	3G/HD/SD-SDI Video Patch Cord	
14	1	lot	Network switches	
15	1	lot	Network Management System (NMS/SNMP) Simple Network Monitoring Protocol	
16.1	1	lot	Media Assets Management System (MAMS) Software	
16.2	1	lot	Media Assets Management System (MAMS) Hardware	
16.3	1	lot	Media Assets Management System (MAMS) Clients	
17	1	lot	NAS Archiving	
18	1	unit	Ingest Server	
19.1	2	sets	Playout Server (Main and Back-up)	
19.2	1	set	Playout Client	
20.1	1	set	Master Control Switcher	
20.2	1	set	Playlist Client	
20.3	1	set	Graphics client	
20.4	1	set	Back-up Switcher	
21	1	set	On-Air NAS Storage	
22	1	channel	Compliance Recorder (SD/HD)	
23.1	6	sets	Metal rack	
23.2	12	unit	Rack Power Distribution Unit	
24	1	lot	Furniture	
25	1	lot	Under raised floor cable tray	
26	1	lot	Installation materials	
27	1	copies	Electrical installations	
28.1	3	copies	Operation Manual Hard Copy	
28.2	3	copies	Service Maintenance Manual Hard Copy	
28.3	3	lot	Operation and Service Maintenance Manual Soft Copy	
29	1	lot	Integration & Service	
30	1	lot	Testing, Commissioning & Training	
31	1	lot	1 year On-site Technical support	

RESTORATION OF BUILDING AFTER MASONRY WORKS

All masonry works that will, in any way, alter the building shall be restored by the Winning Bidder/System Integrator to its account.

Section VIII. Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Document

☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);

Technical 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; **or** Original copy of Notarized Bid Securing Declaration; **and**

☐ (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); **and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder; **and**

(g) Supplemental Bid Bulletin, if applicable

(h) Track Record Certifications (2.2.1)

Financial Documents

☐ (i) 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

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

II. FINANCIAL COMPONENT ENVELOPE

☐ (a) Original of duly signed and accomplished Financial Bid Form; **and**

☐ (b) Original of duly signed and accomplished Price Schedule(s).


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