Through PB website

PRASAR BHARTI
(India's Public Service Broadcaster)
Director General: Doordarshan
Doordarshan Bhawan, Copernicus Marg
New Delhi -110001.

Dated 29/09/2023

Subject: Industry feedback on draft RFP for selection of Master System Integrator for Design, Development, Implementation, Operations and Maintenance of OTT platform

Draft of upcoming RFP for selection of Master System Integrator for Design, Development, Implementation, Operations and Maintenance of OTT platform is enclosed herewith to offer comments and feedback by prospective Bidders of same trade.

2. Prospective bidders are requested to provide budgetary quote of proposed RFP. The proforma of commercial bid is available at pages 270 to 272 for offering budgetary quote.

3. Prospective Bidders are requested to provide their feedback on specifications and RFP terms.

Bidders may please submit the above details on or before due date by e-mail to **ddpurchase401@yahoo.co.in** or at following Address.

Assistant Engineer
Room No. 403,
Directorate General: Doordarshan,
Doordarshan Bhawan, Copernicus Marg,
New Delhi -110001 (India)
Telephone: 011- 2311 4401/4403.

Draft RFP for selection of Master System Integrator for Design, Development, Implementation, Operations and Maintenance of OTT platform

Due Date to offer Comments: 05.10.2023 up to 17:00hrs

Encl.: as above (271 Pages)

(N. K. Chaurasia)
Assistant Engineer
Doordarshan Directorate: Doordarshan

RequestforPro posal

Selection of Master System IntegratorforDesign,Develo pment, Implementation, Operations and Maintenance of OTT platform

Prasar Bharati
Prasar Bharati House,
Copernicus Marg,
New Delhi – 110001

1   Table of Contents

1015965/2023/Platforms/DD Free Dish - PBS
RequestforProposalforOTT platform for Prasar Bharati

Data Sheet

Publish Date	
Bid Document Download Start Date	
Bid Submission Start Date	
Bid Submission End Date	
Technical Bid Opening Date	
Validity of Bid	180 days from the last date of submission of Bids.

Bids shall be submitted online only at CPPP website: https://eprocure.gov.in/eprocure/app. Tenderers/Contractors are advised to follow the instructions provided in the „Instructions to the Contractors/Tenderer for the e-submission of the bids online through the Central Public Procurement Portal for e-procurement at https://eprocure.gov.in/eprocure/app'**.** Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

Abbreviations

Sr. No.	Abbreviation	Full Form
1	BDS	Bids Data Sheet
2	CPPP	Central Public Procurement Portal
3	CVC	Central Vigilance Commission
4	DP	Delivery Period
5	DSC	Digital Signature Certificate
6	EMD	Earnest Money Deposit
7	FOR	Free on Rail/Road
8	GST	Goods and Service Tax
9	GSTIN	Goods and Service Tax Identification Number
10	GTC	General Terms &Conditions
11	HSN/ SAC	Harmonized System Nomenclature / Service Accounting Code.
12	IEM	Independent External Monitor
13	IFB	Invitation for Bid
14	INR	Indian Rupees
15	IP	Integrity Pact
16	ITB	Instructions to Bidders
17	JV	Joint Venture

Sr. No.	Abbreviation	Full Form
18	L-1	Lowest Tender
19	LPP	Last Purchase Price
20	MSME	Micro, / Small & Medium Enterprise
21	NEFT	National Electronic Funds Transfer
22	OEM	Original Equipment Manufacture
23	PBG	Performance Bank Guarantee
24	RTGS	Real Time Gross Settlement
25	SITC	Supply, Installation, Testing &Commissioning.
26	SETC:	Supply, Erection, Testing &Commissioning.
27	FOC	Free of Charge
28	DC	Data Center
29	DR	Disaster Recovery Center
30	OTT	Over The Top

1   Prasar Bharati Overview

The major objectives of the Prasar Bharati Corporation as laid out in the Prasar Bharati Act, 1990 are as follows:

- To uphold the unity and integrity of the country and the values enshrined in the Constitution.

- To safeguard the citizen's right to be informed freely, truthfully and objectively on all matters of public interest, national or international, and to present a fair and balanced flow of information including contrasting views without advocating any opinion or ideology of its own.

- To promote national integration.

- To pay special attention to the fields of education and spread of literacy, agriculture, rural development, environment, health & family welfare and science & technology.

- To create awareness about women's issues and take special steps to protect the interests of children, aged and other vulnerable sections of the society.

- To provide adequate coverage to diverse cultures, sports and games and youth affairs.

- To promote social justice, safeguarding the rights of working classes, minorities and tribal communities.

- To promote research and expand broadcasting faculties & development in broadcast technology.

Prasar Bharati intends to design, develop, commission, operate and maintain an Over The Top (OTT) platform for its content available and for the reach of all the citizens in India, even remotest village as well as global audience. The intended OTT platform is required to function in a lag and buffer free environment giving all set of users a state of the art and lag free viewing experience.

2 Instruction to Bidders

2.1 Completeness of Response

Bidders are advised to study all instructions, forms, terms and conditions, requirements and other information in the RFP document carefully. Bidders submitting their Bids shall be deemed to have done so after careful study and examination of the RFP document and with full understanding of its implications.

The response to this RFP should be full and complete in all respects. Failure to furnish all information as required by the RFP or the submission of a Proposal not substantially responsive to the RFP in every respect will be at the Bidder's risk and may result in rejection of their Proposal.

2.2 ProposalPreparationCosts

The Bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in the conduct of informative and other due diligence activities, participation in meetings / discussions / presentations, preparation of Proposal, providing any additional information required by Prasar Bharati   to   facilitate theevaluationprocess,andinnegotiatingadefinitivecontractorallsuchactivitiesrelated totheBidprocess.Prasar Bharatiwillinnocaseberesponsibleorliableforthosecosts,regardless of the conduct or outcome of the biddingprocess.

ThisRFP   does   notcommitPrasar Bharatitoawardacontractortoengageinnegotiations.Further, no reimbursable cost may be incurred in anticipation of the award or for preparing this Bid. All materials submitted by the Bidder would become the property of Prasar Bharati and may be returned completely at their sole discretion.

The Bidder shall bear all cost associated with the preparation and submission of the Bid including but not limited to Documentation Charges, Bank charges, all courier charges, translation charges, authentication charges and any associated charges including taxes & duties thereon. Further, Prasar Bharati will in no case be responsible or liable for these costs, regardless of the outcome of the bidding process.

1015965/2023/Platforms/DD Free Dish - PBS
RequestforProposalforOTT platform for Prasar Bharati

The Bidder shall not be entitled to hold any claim against Prasar Bharati for non-compliance due to lack of any kind of pre-requisite information as it is the sole responsibility of the Bidder to obtain all the necessary information with regard to site, surrounding, working conditions, weather etc. on its own before submission of the Bid.

The Bidders/ Vendors shall be charged the Processing Fees in accordance with the Estimated Cost of respective Tenders. The following are the charges to be paid by the Bidders /Vendors on the e-procurement portal:

Estimated value of Tender	Processing fees	
	Per Tender Per Bidder	**Total including GST**
Less than or Equal to Rs. 10 Lakhs	₹ 475.00 + 18 % GST	₹560.50
More than 10 Lakhs but Less than or equals to 50 Lakhs	₹ 925.00 + 18 % GST	₹1091.50
More than 50 Lakhs	₹ 1150.00 + 18 % GST	₹1357.00
Annual charges for Online Bidder / Vendor for the Registration	₹ 450.00 + 18 % GST	₹531.00

2.3 SigningofCommunicationwiththePrasar Bharati

AllcommunicationstoPrasar BharatiincludingthisRFPandtheBiddocumentsshallbesignedon each page by the authorized representative of the bidder and Power of Attorney as prescribedinAnnexure10.1therebyauthorizingtherepresentativetosignthedocuments relatedtothebidshouldbesubmittedalongwiththeBidresponse.**Allthepagesinthebid response / any communication with Prasar Bharati shall be numbered, signed byauthorized representative and stamped.**

Prasar Bharati will award the Contract to the successful Bidder, who, within 'fifteen [15]days' of receipt of the same, shall sign and return the acknowledged copy to Prasar Bharati.

The successful Bidder/Contractor shall be required to execute an 'Agreement' in a Performa on a 'non-judicial stamp paper' of appropriate value [cost of the 'stamp-paper' shall be borne by the successful Bidder/Contractor] and of ' state' specified only, within 'fifteen [15] days' of receipt of the "Letter of Acceptance [LOA]" of the Tender by the successful Bidder/Contractor failure on the part of the successful Bidder/Contractor to sign the 'Agreement' within the above stipulated period, shall constitute sufficient grounds for appropriate action per tender provisions.

If the Bidder or any employee of the Bidder or any person acting on behalf of the Bidder, either directly or indirectly, is a relative of any of the employee of Prasar Bharati, or alternatively, if any relative of an employee of Prasar Bharati has financial interest/stake in the Bidder's firm, the same shall be disclosed by the Bidder at the time of filing of tender. The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.

The Bidder shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of Prasar Bharati

2.4   AmendmentofRFPDocument

At any time prior to the last date for receipt of Bid response, Prasar Bharati may, for any reason, whether at their own initiative or in response to a clarification requested by aprospective Bidder, modify the RFP document through an amendment. The amendment will be publishedonthe Prasar Bharatiwebsite (https://prasarbharati.gov.in/pbtenders/) and CPPP site https://eprocure.gov.in/eprocure/app(EProcurement Website)and it shallbe the responsibilityof the Bidders to be vigilant about the updates uploaded by Prasar Bharati on theirwebsite.

In order to accord a reasonable time to the prospective Bidders to take the amendment into account for preparing their Bids, Prasar Bharati may, at their discretion, extend the last date for the receipt of Bids. The Bidders are allowed to resubmit their Bid, if required, after such amendments (butwithin the lastdate and time forsubmissionof the Bids).IfPrasar Bharatideems it appropriate to revise any part of this RFP or to issue

additional data to clarify any provision of this RFP, they may issue a supplement / amendment / corrigendum to thisRFP.AnysuchcorrigendumshallbedeemedtobeincorporatedintotheRFPbythis reference.

2.5   Prasar Bharati'srighttomodifysubmissiondeadline

Prasar Bharati may, in exceptional circumstances and at their discretion, extend the deadline for submission of Proposals by issuing a corrigendum on the Prasar Bharatiwebsite(https://prasarbharati.gov.in/pbtenders/)   and   CPPP   site https://eprocure.gov.in/eprocure/app(EProcurement

Website).Insuchascenario,allrightsandobligationsoftheprojectandthe Bidders previously subject to the original deadline will thereafter be subject to the extended deadline.

2.6   Prasar Bharati'srighttoterminatetheprocess

Prasar Bharati may terminate the RFP process at any time without assigning any reason what so ever. Prasar Bharati makes no commitments, express or implied, that this process will result in a business transaction with anyone. This RFP does not constitute an offer by Prasar Bharati.

Time and date of delivery shall be the essence of the contract. If the supplier/contractor fails to deliver the stores, or any installment thereof, within the period fixed for such delivery in the schedule or at any time repudiates the contract before the expiry of such periods, the Purchaser may, without prejudice to any other right or remedy available to him to recover damages for breach of the contract:-

Recover from the Supplier/Contractor as agreed, liquidated damages including administrative expenses and not by way of penalty, While granting an extension of the delivery period, where the delivery of stores or any installment thereof is accepted after expiry of the original delivery period, the Purchaser shall recover from the contractor, as agreed, the LD a sum equivalent to 0.5 (Half) percent of the prices of any portion of stores delivered late, for each week or part thereof of delay. The total damages shall not exceed 10 (Ten) percent of the value of delayed goods/Units. If the delayed supply/unit found vital for the functioning of the entire supply/unit, then the entire unit/Supply shall consider as delayed supply/ unit for the calculation of LD. The LD shall not exceed the amount stipulated in the contract. After a full period of extension, termination of the contract will be considered by the Organization.

Purchase or authorize the purchase elsewhere on the account and at the risk of the supplier/contractor, of the stores not delivered/SITC/SETC not carried out or other of a similar description (where stores/ SITC/SETC exactly complying with the particulars are not in the opinion of the purchaser, which shall be final, readily procurable) by serving prior notice to the supplier/contractor without cancelling the contract in respect of the installment not yet due for delivery; orcancel the contract or a portion thereof by serving prior notice to the supplier/contractor and if so desired purchase or authorize the purchase of the stores not delivered /SITC/SETC not carried out or others of a similar description (where stores not delivered/ SITC/SETC not carried out, exactly complying with particulars are not in the opinion of the purchaser, which shall be final, readily procurable) at the risk and cost of the supplier/contractor. If the supplier/contractor had defaulted in the performance of the original contract, the purchaser shall have the right to ignore his tender for risk purchase even though the lowest. Where the contract is terminated at the risk and cost of the firm under the provisions of this clause, it shall be at the discretion of the purchaser to exercise his discretion to collect on not, the Security Deposit from the firm on whom the contract is placed, at the risk and expense of the defaulted firm. The supplier/contractor shall be liable for any loss which the purchaser may sustain on that account, provided the purchase or if there is an agreement to purchase, such agreement is made in case of failure to deliver the stores, within 6 months from the date of such failure and in case of repudiation of contract the supplier/contractor shall not be entitled to any gain on such the entire discretion of the purchaser to serve a notice of such purchase on the contractor. For recovery of liquidated damages on the cost of the contract price of delayed supplies at the rate of ½% (Half Percent) of the contract price of the delayed unit or effective delay occurred unit (even if it has been supplied) for per week for such delay or part thereof upto a ceiling of 10% of the contract price of delayed supplies/SITC/SETC. If the delayed supply/unit found vital for the functioning of the entire supply/unit, then the entire unit/Supply shall consider as delayed supply/ unit for the calculation of LD. Liquidated damages for delay in supplies/SITC/SETC thus accrued will be recovered by the Paying Authority on instruction as specified in the supply order, from the bill for payment of the cost of material/works submitted by the contractor in accordance with terms of supply order on instruction from Purchaser regarding liquidated damages amount.

Notwithstanding anything stated above, equipment and materials will be deemed to have been delivered/SITC/SETC will be deemed to have been carried out only when all its components/parts are also delivered. If certain components of stores are not delivered in time/SITC/SETC not carried out in time, the stores/SITC/SETC will be considered as delayed until such time all the missing parts are also delivered.

2.7 SubmissionofResponses

Bids shall be submitted online only at CPPP website: https://eprocure.gov.in/eprocure/app. Bidders are advised to follow the instructions provided in the Instructions to the Contractors/Tenderer for the e-submission of the bids online through the Central Public Procurement Portal for e-procurement at https://eprocure.gov.in/eprocure/app. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

Not more than one tender shall be submitted by one contactor or contractors having business relationship. Under no circumstance will father and his son(s) or other close relations who have business relationship with one another (i.e. when one or more partner(s)/director(s) are common) be allowed to tender for the same contract as separate 3 competitors. A breach of this condition will render the tenders of both parities liable to rejection.

Bidders who has downloaded the tender from the Prasar Bharati's web site https://prasarbharati.gov.in/pbtenders/(for reference only) and Central Public Procurement Portal (CPPP) website https://eprocure.gov.in/eprocure/app, shall not modify the tender form including downloaded price bid template in any manner. In case if the same is found to be tempered/ modified in any manner, tender will be completely rejected and EMD would be forfeited and tenderer is liable to be banned from doing business with Prasar Bharati.

The hardcopyof the RFP should alsobe submitted in a single sealed envelope, clearly marked as **"Response to RFP for selection of a MSI for design, development, commissioning, operations and maintenance ofOTT platform at Prasar Bharati from << Name of the Bidder / Prime Bidder in case of consortium>>".** This should not consist of any Commercial Proposal. The envelope should indicate the complete address and contact details of the Bidder to enable the return of the unopened bids in case it is declared "late". The Original Proposal shall be prepared in indelible ink and

should contain no interlineations or overwriting, unless necessary to correct errors made by the bidder itself.

The correspondence for any technical queries pertaining to this RFP and submission of Bid response must be made at the following address:

<div align="center">

XXXXXXXXXXX

XXXXXXXXXXXX

XXXXXX

XXXXXXXXXXX

</div>

It is mandatory for all the applicants to have Class-III Digital Signature Certificate, with both DSC Components i.e. signing & Encryption, (in the name of the person who will sign the bid document) from any of the licensed Certifying Agency. Bidder may contact the Service provider of e-procurement Portal, at mobile no. +91-8130606629 for DSC related queries or can email at vikas.kumar@c1india.com/prasarbharatisupport@c1india.com

To participate in the e-bid, it is mandatory for the Applicants to get themselves registered with the Prasar Bharati e-Tendering Portal (https://prasarbharati.eproc.in) to have a user ID & Password which has to be obtained by submitting a non-refundable annual registration charges of Rs. 450/- plus 18% GST through online mode (net banking/debit card/credit card). Validity of Registration is 1year.

Page No. shall be given on each and every paper/documents serially uploaded in the technical bid.

Bidders shall ensure to quote rate of each item. If any cell is left blank and no rate is quoted by the bidders, the rate of such item shall be treated as "0" (Zero).

2.8 ConflictofInterest

   i.   Prasar Bharati requires that Agencies / Organizations should provide professional, objective, and impartial advice and at all times hold the Prasar Bharati's interestsparamountandstrictlyavoidconflictswithotherAssignment/jobsortheir own corporate interests.

   ii.   AnyBidderfoundtohaveaConflictofInterestshallbedisqualified.Intheeventof

disqualification, Prasar Bharati shall be entitled to forfeit and appropriate the Bid Security / EMDorPerformanceSecurity,asthecasemaybe,asmutuallyagreedtogenuine pre-estimatedlossanddamagelikelytobesufferedandincurredbyPrasar Bharatiandnot by way of penalty for, inter alia, the time, cost and effort of Prasar Bharati, including consideration of such Bidder's proposal, without prejudice to any other right or remedy that may be available to Prasar Bharati under the Bidding documents and/or otherwise. Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the Bidding process,if:

a. The Bidder, its Member or Associate (or any constituent thereof) and any other Bidder, its Member or any Associate thereof (or any constituent thereof)havecommoncontrollingshareholdersorotherownershipinterest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder, its Member or an Associate thereof(or any shareholder thereof having a shareholding of more than 5% (five per cent) of the paid up and subscribed share capital of such Bidder, Member or Associate, as the case may be) in the other Bidder, its Member or Associate, is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall notapplytoanyownershipbyabank,insurancecompany,pensionfundor apublicfinancialinstitutionreferredtoinsub-section(72)ofsection2ofthe CompaniesAct,2013.ForthepurposesofthisClause,indirectshareholdi ngheldthroughoneormoreintermediatepersonsshallbe computed as follows:

    i. Where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person")shallbetakenintoaccountforcomputingtheshareholding of such controlling person in the Subject Person;and

    ii. Subject always to sub-clause above, where a person does not

exercisecontroloveranintermediary,whichhasshareholdinginthe Subject Person, the computation of indirect shareholding of such personintheSubjectPersonshallbeundertakenonaproportionate basis; provided, however, that no such shareholding shall be reckonedunderthissub-clauseiftheshareholdingofsuchpersonin the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or

b. AconstituentofsuchBidderisalsoaconstituentofanotherBidder;or

c. SuchBidder,itsMemberoranyAssociatethereofreceivesorhasreceived anydirectorindirectsubsidy,grant,concessionalloanorsubordinateddebt from any other Bidder, its Member or Associate, or has provided any such subsidy,grant,concessionalloanorsubordinateddebttoanyotherBidder,   its Member or any Associate thereof; or

d. Such Bidder has the same legal representative for purposes of this Bid as any other Bidder; or

e. Such Bidder, or any Associate thereof, has a relationship with another Bidder, or any Associate thereof, directly or through common third party / parties,thatputseitherorbothoftheminapositiontohaveaccesstoeach other's information about, or to influence the Bid of either or each other;or

f. Such Bidder or any Associate thereof has participated as a consultant to the Employer in the preparation of any documents, design or technical specifications of the proposed Scope of Work.

iii. If any legal, financial or technical adviser of Prasar Bharati in relation to the Project is engaged by the Bidder, its Members or any Associate thereof, as the case   may be,inanymannerformattersrelatedtoorincidentaltosuchScopeofWorkofthis   RFP during the Bidding Process.

2.9   Sitevisitandverificationofinformation

Bidders are encouraged to submit their respective Bids after visiting the Prasar Bharati premises

inDelhiwheretheworkisproposedtobecarriedout.Biddersmayattheirownexpensevisitthesi teandascertainforthemselves the site conditions, location, surroundings, climate, availability of power, water and other utilities for carrying out the said work, access to the site, handling and storage of materials, applicable laws and regulations, and any other matter considered relevant by them. It shall be deemed that by submitting a Bid, the Bidderhas:

i. MadeacompleteandcarefulexaminationoftheBiddingdocumentsandtheproject site;

ii. ReceivedallrelevantinformationasrequestedtoPrasar Bharati;

iii. Acceptedtheriskofinadequacy,errorormistakeintheinformationprovidedinthe RFPorfurnishedbyoronbehalfofthePrasar Bharatirelatingtoanyofthemattersreferred to above;

iv. Satisfied itself aboutallmatters, thingsand information includingmattersreferred hereinabove necessary and required for submitting an informed Bid, execution of the Project in accordance with the RFP and performance of all of its obligations thereunder;

v. Acknowledgedandagreedthatinadequacy,lackofcompletenessorincorrectness of informationprovidedin   the   RFP   orignorance   ofanyof   thematters referredtohereinabove shall not be a basis for any claim for compensation, damages,

extensionoftimeforperformanceofitsobligations,lossofprofitsetc.fromPrasar Bharati

vi. AcknowledgedthatitdoesnothaveaConflictofInterest;and

v**i**. Agreedtobeboundbytheundertakingsprovidedbyitunderandin termshereof.

Prasar Bharati shall not be liable for anyomission,mistake or error in respect of any of theabove

oronaccountofanymatterorthingarisingoutoforconcerningorrelatingtoRFP,orthe

BiddingProcess,includinganyerrorormistakethereinorinanyinformationordatagiven   by them.

2.10 VerificationandDisqualification

Prasar   Bharatireservestherightto

verifyallstatements,informationanddocumentssubmittedby theBidderinresponsetothisRFPortheBiddingDocumentsandtheBiddershall,asand when required by Prasar Bharati, make available all such information, evidence and documents which may be necessary for such verification. Any such verification, or absence of such verification, by Prasar Bharati shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of Prasar Bharatithereunder.

Prasar BharatireservestherighttorejectanyBidandforfeittheBidSecurityif:

i. Atanytime,amaterialmisrepresentationismadeoruncovered,or

ii. TheBidderdoesnotprovide,withinthetimespecifiedbyPrasar Bharati,thesupplemental information sought by Prasar Bharati for evaluation of theBid.

Such misrepresentation / improper response shall lead to the disqualification of the Bidder. If the Bidder is a Consortium, then the entire Consortium and each Member will be disqualified / rejected. If such disqualification / rejection occurs after the Bids have beenopenedandtheHighestBiddergetsdisqualified/rejected,Prasar Bharatireservestheright to take appropriate action and select the Bidder as per Government procedure

2.11 Pre-bidconference

Pre-Bid conference of the bidders shall be convened at the designated date, time and placeasmentioned below and queries need to be submitted as per Annexure 10.4.Amaximumof2 representativesperorganizationshall be allowed to participate in the Pre-Bid conference. An authorization letter for the representativesattendingthePre-Bidconferencedulysignedandstampedbytheauthorizedsignatoryoftheorganizationhastob esubmittedbeforeattendingthe Pre-Bid Conference.

The interested Bidder have to submit the queries as per the format mentioned inAnnexure 10.4 and before the time stipulated as mentioned in Schedule1.Queriessubmitted beyond the stipulated time may not be considered by Prasar Bharati. Bidderssubmitting their queries in any other format shall not be accepted at all byPrasar Bharati.

2.12 Clarifications

i. BiddersrequiringanyclarificationontheRFPmaynotifyPrasar Bharati,inwriting,bye- mail as per the correspondence details mentioned in this RFP. They should send in their queries on or before the submission of queries date and time as mentioned in the Schedule 1.

ii. Prasar Bharatishallendeavortorespondtothequestionsraisedorclarificationssought by the Bidders. However, Prasar Bharati reserves the right to not respond to any question or provide any clarification, at its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring Prasar Bharati to respond to any question or to provide any clarification.

iii. Prasar Bharati may also on its own accord, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by Prasar Bharati shall be deemed to be part of the Bidding Documents / this RFP. Verbal clarificationsandinformationgivenbyPrasar Bharatioritsemployeesorrepresentatives shall not, in any way or manner be binding onPrasar Bharati.

2.13 AmendmentofRFP

Atanytimepriortothebidsubmissiondate,Prasar Bharatimay,foranyreason,whetheratitsown initiative or in response to clarifications requested by a Bidder, modify the RFP by the issuance of addendum / corrigendum. Any addendum / corrigendum issued hereunder willbeinwritingandshallbeuploadedonthePrasar Bharatiwebsiteas well asCentral Public Procurement Portal (CPPP) website https://eprocure.gov.in/eprocure/appandalsomay be senttotheBidders submitting their queries / attending the pre-bid meeting. In order to afford the Bidders a reasonable time for taking an addendum / corrigendum into account, or for any other reason, Prasar Bharati may, in its sole discretion, extend the due date for bidsubmission.

2.14 PreparationofBids

The Bidder shall provide all the information sought under this RFP. Prasar Bharati will evaluate

onlythoseBidsthatarereceivedintherequiredformatandarecompleteinallrespects.

Tenderer who has downloaded the tender from the Prasar Bharati's web site www.indiatradefair.com(for reference only) and Central Public Procurement Portal (CPPP) website https://eprocure.gov.in/eprocure/app, shall not modify the tender form including downloaded price bid template in any manner. In case if the same is found to be tempered/ modified in any manner, tender will be summarily rejected and EMD would be forfeited and the bidder would be liable to be banned from doing business with Prasar Bharati.

The Bidder is also expected to submit 1 (one) copy in original including all the supporting documents in original (as per the requirement of Prasar Bharati) and shall be typed or written in indelible ink and signed by the authorized signatory of the Bidder who shall also initial each page. All alterations, omissions, additions or any other amendments   made   to   the BidshallbenumberedandinitialedbythepersonsigningtheBid.Thisshallbea2cover system (sealed and signed) where:

1   First cover shall contain the original of the checklist as per Annexure 10.11, pre-qualification documents, tender fee and cover should be clearly marked as the "Pre-qualification documents"

2   Secondcovershallcontainoriginaltechnicalproposaldocumentandcovershouldbe clearly marked as the "Technical Proposal"

All two covers shall be in a one large cover, sealed, signed and clearly marked as **"Response to RFP for selection of a MSI for design, development, commissioning, operations and maintenance of OTT platform at Prasar Bharati from << Name of the Bidder / Prime Bidder in case of consortium>>".**

Note: Commercial proposal should not be submitted in the physical format and incase of any deviations, this will lead to disqualification of the bidder.

2.15 Proposalresponse

No single bidder / any member of the consortium shall submit more than one Bid for

the Project.ABidderbiddingindividuallyorasamemberofaConsortiumshallnotbeentitled to submit another bid either individually or as a member of any Consortium, as the case may be.

The Bidder / Prime Bidder of the Consortium should submit a Power of Attorney as per theformatatAppendix 10.1,authorizingthesignatoryoftheBidtocommittheBidderandin case the Bidder is a Consortium, the Members thereof should furnish a Power of Attorney in favour of the Prime Bidder in the format in Appendix 10.1 and 10.2.

ThedocumentsincludingthisRFPandallattacheddocuments,providedbyPrasar Bharatiareand shallremainorbecomethepropertyof Prasar BharatiandaretransmittedtotheBidderssolely for the purpose of preparation and the submission of a Bid in accordance herewith. Bidders aretotreatallinformationasstrictlyconfidentialandshallnotuseitforanypurposeother than for the preparation and submission of theirBid.

All the Annexures, i.e. Annexure 10.1 to 10.22 are required to be submitted by the Bidder in the bid response.

2.16 LateBids

Bids received by Prasar Bharati after the specified time on the bid submission date shall not be eligible for consideration and shall be summarily rejected.

2.17 Modifications/Substitution/WithdrawalofBids

TheBiddermaymodify,substituteorwithdrawtheirBidaftersubmission,providedthata written notice of the modification, substitution or withdrawal is received by Prasar Bharati prior to theBidsubmissiondate.NoBidshallbemodified,substitutedorwithdrawnbytheBidder on or after the Bid submission date and time.

Themodification,substitutionorwithdrawalnoticeshallbeprepared,sealed,marked,and delivered in writing to Prasar Bharati with the envelopes being additionally marked as "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL", asappropriate.

Any alteration / modification in the Bid or additional information supplied subsequent to the bid submission date, unless the same has been expressly sought for by Prasar Bharati, shall be disregarded.

2.18 TenderOpening

Prasar Bharati shall open the Bids as per the date and time mentioned in the Schedule 1 and in the presence of the Bidders who choose to attend. The Bid responses submitted by the Bidders shall be evaluated on the basis of the pre-qualification criteria as mentioned in Section 4 and Bidders failing to meet the same shall be summarily rejected.

2.19 BidValidity

TheoffersubmittedbytheBiddersshouldbevalidforminimumperiodof120daysfrom the date of submission of their Bids.

2.20 IncompleteBids

InitialscrutinyoftheBidresponsesshallbedoneandifincaseofanyBidderssubmitting incomplete Bids as per the criteria mentioned below shall be treated as non-responsive:

- Bidresponsenotsubmittedaspertheformatspecifiedinthe RFPdocument

- BidresponsereceivedwithouttheLetterofAuthorization/PowerofAttorneys

- Bidresponsefoundtosuppressthedetails

- Bidresponsesubmittedwithincompleteinformation,subjective,conditionaland/or partial offer is submitted

- Bidresponsesubmittedwithoutthedocumentsrequestedinthechecklist

- Bidresponsenon-compliantwithanyoftheclausesstipulatedintheRFP

- Bidresponsewithlesservalidityperiodasstipulated

- BidresponsesubmittedwithouttenderfeeandEMD

2.21 RighttoAcceptAnyProposalandToRejectAnyorAllProposal(s)

Prasar BharatireservestherighttoacceptorrejectanyProposal,andtoannultheBiddingProcess and reject all Proposals at any time prior to Award of Contract, without incurring any liabilitytotheaffectedBidderorBiddersoranyobligationtoinformtheaffectedBidderor Bidders of the grounds of the action taken byPrasar Bharati.

2.22 NotificationofAward

Priortotheexpirationofthevalidityperiod,Prasar

BharatiwillnotifythesuccessfulBidderinwriting or by fax or email, thattheir Proposal has been accepted. In case the bidding process is notcompletedwithinthestipulatedperiod,Prasar Bharati,wouldrequesttheBidderstoextendthe validity period of the Bid.

TheNotificationofAwardwillconstitutetheformationofthecontract.Uponthesuccessful Bidder furnishing of Performance Bank Guarantee, Prasar Bharati will notify each unsuccessful bidder and return their EMD.

2.23 ContractFinalizationandAward

Prasar Bharati shall reserve the right to negotiate with the Bidders whose proposal has been ranked best value bid on the basis of Technical and Commercial Evaluation to the proposed Project, as per the guidance provided by CVC. On this basis the Contract Agreement would be finalized for award and signing.

2.24 EarnestMoneyDeposit(EMD)

a) Biddersshallsubmit,alongwiththeirBids,EMDofRs.XXXXXXXXXXonly,intheform of a Bank Guarantee (in the format specified in Annexure 10.4) issued by any Scheduled bank in favour of "Directorate General: Doordarshan, Doordarshan Bhawan, Copernicus Marg, New Delhi – 110001,", payable at Delhi, and should be <u>valid for 6 months</u> from the submission date of the BiddersBids.

b) EMD of all unsuccessful Bidders would be refunded by Prasar Bharati within one month of the Bidder being notified of being unsuccessful. The EMD, for the amount mentionedabove,ofthesuccessfulBidderwouldbereturneduponthesubmission of Performance Bank Guarantee as per the format provided in Annexure 10.1

c) The EMD amount is interest free and will be refundable to the unsuccessful Bidders without any interest accrued on it.

d) TheBid/ProposalsubmittedwithoutEMD,asmentionedabove,willbesummarily rejected.

e) The EMDmaybeforfeited

    i. IfaBidderwithdrawsit'sBidduringtheperiodofBidvalidity.

    ii. In case of a successful Bidder, if the Bidder fails to sign the Contract in

accordance with this RFP.

f) Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or Department or Start-ups as recognized by Department of Industrial Policy & Promotion (DIPP) shall be exempted from payment in respect of cost of Earnest Money as per the Government instructions on the subject on submission of documentary evidence of valid Registration in the concerned category of the Tendered items.

g)   Bid Security/EMD shall be placed in a single sealed envelope superscripted with tender reference no. and date of opening so as to reach <Asstt. Director Engg. (Purchase)/Assistant Engineer (Purchase) in Room No.403, Directorate General: Doordarshan, Doordarshan Bhawan, Copernicus Marg, New Delhi> before scheduled time on prescribed tender opening date. EMD received after Tender opening date shall be summarily rejected along with the corresponding Tender. Hard copy of any other tender document shall not be accepted. Soft copy of the EMD should be uploaded while submitting bids on e-tendering portal.

2.25 PerformanceBankGuarantee

The successful bidders will be required to furnish Performance Security Deposit within 30 days of placement of contract at the rate of Five (5) % (three to ten per cent of the value of the contract, as specified in Rule 171(i) of GFR, 2017.) in one of the acceptable forms as per tender documents. (Ref Ministry of Finance, Department of Expenditure Order No. F.9/4/2020-PPD dated 30/12/2021 or (latest order). Performance Security shall be in the form of Account Payee Demand Draft, Insurance Surety Bonds, NEFT/RTGS from any scheduled bank (s) Fixed Deposit Receipt (FDR), Bankers Cheque or Bank Guarantee (including e-Bank Guarantee from an India scheduled Commercial Bank in an acceptable form. .In addition to the PBG, the Bidders are also required   to   submit   a   valid   Bank   Guarantee   ofthe110% foranyadvancemadetotheSelectedBidderwhichshallbevalidtillthework under the advance is successfully completed.

In case the contract is terminated due to default on the part of the selected bidder, the

MobilizationAdvanceshallbedeemedasinterestbearingadvancewithaninterestrateof   10% to be compounded quarterly, which shall be recovered from the Bidder.

Technical Bid must contain scanned copy of Unconditional Acceptance of Prasar Bharati's Tender Terms &Conditions, GST details and EMD etc.

In case of payment through net-banking the money will be immediately transferred to Prasar Bharati's designated Account through NEFT/RTGS from any scheduled bank(s), the bidder will have to furnish the UTR Remittance Number(s) before submission of bid, payment details shall also be uploaded on e-procurement portal along with Bid. The payment of EMD through NEFT /RTGS mode should be made well ahead of time to ensure that the EMD amount is transferred to Prasar Bharti account before submission of bid.

2.26 SigningofContract

AfterPrasar BharatinotifiesthesuccessfulBidderthatitsProposalhasbeenaccepted,Prasar Bharatishall   enterintoa   Contract,incorporatingallclauses,   Pre-BidclarificationsandtheProposalof the Bidder between Prasar Bharati and the successful Bidder. TheLegalAgreementwould be a standard draft followed by Prasar BharatiandPrasar   Bharatimayfinalize thesameafterlegalconsultations,andforthebenefitoftheproject,anditshallbebinding on the Bidder.

2.27 FailuretoAgreewiththeTermsandConditionsoftheRFP

FailureofthesuccessfulBiddertoagreewiththeDraft/afterlegalconsultationstheLegal Agreement and Terms& Conditionsof the RFP shall constitute sufficient groundsforthe annulment of the Award, in which event Prasar Bharati may award the Contract to the next best value Bidder or call for new proposals from the interestedbidders.

In sucha case,Prasar Bharati shallinvoke theEMDand thePerformanceBankGuarantee of the successful bidder.

2.28 Projecttimeperiod

Theworkhastobecompletedwithinmaximum of 0monthsaftertheawardofcontract and as per the project milestone schedule mentioned in Section7. The Bidder is supposed to deploy   sufficient   professionals   and   trained   manpower   who wouldbeabletocompletethework,withproperQualityChecksasperinternationalstandards

well within the stipulated time frame. In order to ensure timely completion of the project, the selected Bidder has to deploy requisite equipment's in good working condition, wherever required, necessary to carry out work, within 30 days of issuance of awardletter.

On Mutually agreed terms, the project time period can be further extended for a period of 2-3 years.

2.29 ForceMajeure

An event which is beyond the reasonable control of the bidder, is not foreseeable, is unavoidable and not brought about by or at the instance of the bidder claiming to be affected by such events and which has caused the non-performance or delay in performance, and which makes a bidder's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire,explosion,storm,floodorotherextremeadverseweatherconditions,strikes,lockouts   or other industrial action (except where such strikes, lockouts or other industrial action arewithinthepowerofthebidderinvokingForceMajeuretoprevent),confiscationorany otheraction byGovernment agencies shall be termed as Force Majeure. Force Majeure shall not include:

i.   Any event which is caused by the negligence or intentional action of the Bidder / Consortiummemberorbysuchtheirsubagencies(ifany)oragentsoremployees,

ii.   Any event which a Bidder / Consortium member could have taken into account at the time of the execution of the project and avoid or overcome in the carrying out of its obligations.

iii. Shall not include insufficiency of funds or inability to make any payment to fulfill any of its obligations for execution of the work shall not be considered to be a breachof,ordefaultinsofarassuchinabilityarisesfromaneventofForceMajeure, providedthattheBidder/Consortiummemberaffectedbysuchaneventhastaken allreasonableprecautions,duecareandreasonablealternativemeasures,allwith the objective of carrying out the scope of work as mentioned in thisRFP.

2.30 Fraud and Corrupt Practices

a. The Bidders/Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, Prasar Bharati shall reject a Proposal without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, Prasar Bharati shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, inter alia, time, cost and effort of the Authority, in regard to the RFP, including consideration and evaluation of such Bidder's Proposal.

b. Without prejudice to the rights of Prasar Bharati under Clause above and the rights and remedies which Prasar Bharati may have under the LOI or the Agreement, if an Bidder or Systems Implementation Agency, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOI or the execution of the Agreement, such Bidder or Systems Implementation Agency shall not be eligible to participate in any tender or RFP issued by Prasar Bharati during a period of <2 (two) years> from the date such Bidder or Systems Implementation Agency, as the case may be, is found by Prasar Bharati to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

c. For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:

  i. "corrupt practice" means (i) the offering, giving, receiving, or

soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of Prasar Bharati who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOI or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of Prasar Bharati, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of Prasar Bharati in relation to any matter concerning the Project;

ii. "fraudulent practice" means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process

iii. "coercive practice" means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person's participation or action in the Selection Process;

iv. "undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by Purchaser with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and

v. "restrictive practice" means forming a cartel or arriving at any

understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process.

2.31 Violations & Consequences

If a Bidder commits a violation of its Commitments and Obligations under the Integrity Pact Programme during bidding process, their entire Earnest Money Deposit/ Bid Security, would be forfeited and in addition, they would be banned from the Prasar Bharati business in future.

In case of violation of the Integrity pact by Bidder after award of the Contract, Prasar Bharati shall be entitled to terminate the Contract. Further, Prasar Bharati would forfeit the security deposits/ Contract. In case it is found that the Bidder has made any frivolous, untrue and misleading allegations against Prasar Bharati or its associates, Prasar Bharati reserves its right to initiate criminal proceedings against the violating Bidder and may also impose exemplary cost for the same

2.32 One Bid Per Bidder

A Bidder shall submit only 'one [01] Bid' in the same Bidding Process. A Bidder who submits or participates in more than 'one [01] Bid', will cause all the Bids in which the Bidder has participated to be disqualified.

Alternative Bids shall not be considered.

Any Bidder having formed a JV/Consortium shall not be considered eligible to make JV/ consortium with any other bidder or form part of any other JV/Consortium and submit a Bid for the same tender.

2.33 Vague And Indefinite Expression

Tenders qualified by vague and indefinite expressions such as "subject to immediate acceptance" or "subject to prior sale" etc. will not be considered. Unconditional Bids shall only be considered

2.34 Prices For Bidders

Bidders are to quote in INR only on FOR Destination basis.

2.35 Variation Of Quantities (Ref: Para 7.5.3 Mfp 2017)

At the time of awarding the contract, Prasar Bharati shall have right to re-judge the quantity to be procured based on the current data, since the ground situation may have very well changed. The tendered quantity can be increased or decreased by 25 (Twenty-Five) per cent for ordering, if so warranted.

2.36 Option Clause

Prasar Bharati reserves the right to increase/decrease the ordered quantity by up to 25 (Twenty Five) per cent at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period)

2.37 Tax Liability

The Bidder shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture/ production up to the point of delivery. Further instruction, if any, shall be as provided in the Schedule of Requirements.

Payment of CGST/SGST/UTGST/IGST and all other applicable taxes (on ultimate products and Services) and custom duty, as applicable on the closing date of tender will be to supplier's /contractor's account. In the case of "Two Bid" system where revised price bids are permitted after technical discussions payment of these charges as applicable on closing day of revised price bids, will be to supplier's /contractor's account. Any increase over the rate existing on the last date of submission of Bid shall be reimbursed by the Organisation on production of documentary evidence in support of payment actually made to the concerned authorities. Similarly, if there is any decrease in such duties, taxes and levies the same shall become recoverable from the contractor. The details of such duties, taxes and other levies along with rates shall be declared by the bidder.

The bidder(s) will indicate in their bid the amount with exact rate of customs duty and the applicable item of custom tariff under which it is covered. Similarly, the amount of CGST/SGST/UTGST/IGST and all other applicable taxes on ultimate furnished product with HSN/SAC code, as applicable at tendering stage will be shown separately in the bid. In case the above information subsequently proves wrong incorrect or misleading

(a) This Organization will have no liability to reimburse the excess in the difference in rates of the item under which the duty/ tax assessed finally

(b) This Organization will have the right to recover the difference in case the rate of duty/ tax finally assessed is on the lower side.

Contractor shall ensure timely submission of invoice(s) as per rules/ regulations of GST with all required supporting document(s) to enable Prasar Bharati to avail Input Tax Credit (ITC). Further, returns and details required to be filed under GST laws & rules should be timely filed by supplier with requisite details.

If input tax credit (ITC) with respect to GST (CGST & SGST/UTGST or IGST) which normally shall be available to Prasar Bharati, is not available, for any reason, which is not attributable to Prasar Bharati, then Prasar Bharati shall not be obliged or liable to pay or reimburse GST (CGST & SGST/UTGST or IGST) charged in the invoice(s) and shall be entitled to/ deduct/ setoff/ recover the such GST (CGST & SGST/UTGST or IGST) thereupon together with all penalties and interest if any, against any amounts paid or payable by Prasar Bharati to Supplier/ Vendor.

The rates and prices quoted by the Bidder shall be fixed for the duration of the contract and shall not be subject to variations on any account except to the extent variations allowed as per the conditions of the contract of the bidding document.

2.38 Trade/ Volume Discount

Bidders will not indicate a separate discount. Discount, if any, should be merged in the rates against the quoted items(s). Discount of any type indicated separately will not be taken into account for evaluation purposes.

2.39 Purchase Preference

Purchase preference to Central Government Public Sector Undertaking, Micro, Small& Medium Enterprises (MSMEs) and Domestically Manufactured Electronic Products (DMEP) shall be allowed as per Government instructions in vogue, as applicable necessary supporting documents to be furnished by the bidder.

Public Procurement (Preference to Make in India) Order No. P-45021/2/2017-B.E-II dated 15.06.2017 of Government of India, Ministry of Commerce and Industry, Department of Industrial Policy and Promotion and its amendments shall be applicable. Purchase preference for the domestic manufacturer, the methodology of its

implementation, value addition to be achieved by domestic manufacturers, self-certification, and modalities for compliance and monitoring shall be as per the Para 4.6.

2.40 Consideration Of Offer In Full Or In Part

This Organisation may reject/accept or prefer any tender without having to assign any reason whatsoever. This Organisation also reserves to itself the right to accept any tender in part or split the order between two or more bidders.

2.41 Name Of Manufacturer And Certificate Of Origin

The name of the manufacturer should be clearly mentioned in the offer. The Bidder shall have to furnish information of country of origin of each offered item.

2.42 Advance Payment

Ordinarily, Prasar Bharati (PB) would disburse payments for services rendered or supplies made, only after the services have been rendered or supplies made. However, in case of supply of services and turnkey projects and maintenance contracts, advance payment might be considered only on request of the contractor/supplier in cases where it is considered absolutely necessary and justification accepted by Prasar Bharati (PB).

Advance payment will only be released after submission of an unconditional Bank Guarantee by the contractor/supplier. The Bank File No.IT-1/102/SBD/2020-IT&PP 963460/2023/Procurement Policy – PBS 39/46983168/2023/Purchase Section - DG DD 4456 Guarantee shall be from a Commercial bank acceptable to the Procuring Entity in amounts equal to 110% (one hundred ten percent) of the amount of the advance payment being requested and subsequent verification of the Bank Guarantee. The Bank Guarantee shall remain effective until the advance payment has been adjusted. The amount of advance payment against contract for supply of stores shall be restricted to:

- Thirty per cent of the contract value (without taxes) to private firms;

- Forty per cent of the contract value (without taxes) to a state or central Government agency or PSU;

- In case of maintenance contract, the amount shall not exceed the amount payable for six months under the contract.

- An assurance in the shape of indemnity bond/insurance shall be submitted by the vendor in every case where advance payment is to be made. The goods supplied

under the contract, shall be fully insured by the contractor/supplier in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the contract. The amount to be covered under insurance should be sufficient to take care of the overall expenditure to be incurred by the procuring entity for receiving the goods at the destination.

- The advance paid shall be progressively adjusted against bills within the schedule of payments along with the applicable taxes.

- Normally, interest shall not be charged on the advance payment. However, in case of breach of contract by the supplier/contractor and thereby termination of contract by Prasar Bharati, the Advance shall be deemed an interest bearing advance at the prevailing rate (MIBID - Mumbai Inter bank Bid Rate) on the date of such advance payment.

2.43 Unsolicited Post Tender Modification

In case certain clarifications are sought by this Organisation after opening of tenders, then the reply of the bidder should be restricted to the clarifications sought.

Any bidder who modifies his bid(including a modification which has the effect of altering the value of his offer) after the closing date without specific reference by this Organisation shall render the bid liable to be ignored and rejected without notice and without further reference to the bidder.

Canvassing in any form by the bidders shall also render the bid liable to be ignored and rejected without notice and without further reference to the bidder.

2.44 Clarification In Respect Of Incomplete Offers

This Organisation has to finalise its purchase within a limited time schedule. Therefore, it may not be feasible in all cases for this Organisation to seek clarifications in respect of incomplete offers. Prospective bidders are advised to ensure that their bids are complete in all respects and conform to our terms and conditions and Bid Evaluation Criteria of the tender. Bids not complying with this Organisation's requirements may be rejected without seeking any clarifications .However, during evaluation and comparison of bids, Prasar Bharati at its discretion, may ask the bidder for clarifications on the bid. The request for clarification shall be given in writing by registered email Id or through e-procurement Portal,

asking the Bidder to respond by a specified date, and also mentioning therein that, if the Bidder does not comply or respond by the date, his Bid will be liable to be rejected. Depending on the outcome, such tenders will be ignored or considered further. No change in prices or substance of the bid shall be sought, offered or permitted. No post bid clarification at the initiative of the bidder shall be entertained.

The Bidder shall quote the prices in 'figures' & words. There should not be any discrepancy between the prices indicated in figures and the price indicated in words. In case of any discrepancy, the same shall be dealt as follows:

When there is a difference between the rates in figures and words, the rate which corresponds to the amount worked out by the Bidder (by multiplying the quantity and rate) shall be taken as correct.

When the rate quoted by the Bidder in figures and words tallies but the amount is incorrect, the rate quoted by the contractor shall be taken as correct and not the amount and the amount corrected.

When it is not possible to ascertain the correct rate, in the manner prescribed above, the rate as quoted in words shall be adopted and the amount worked

2.45 After Sales Service And Training-

2.46 Replacement/ Rectification

In the event the stores supplied or SITC/SETC carried out against the contract are found to be defective, the supplier/contractor will have to take back the defective materials at his own cost and replace/rectify the defects of the Stores/SITC/SETC free of charge without loss of time. The supplier will not be entitled to dispose of the store/equipment/material given for replacement/rectification without the prior permission of this Organisation. All charges concerned with the rectification including freight charges will be borne by the supplier/contractor.

2.47 Evaluation/ Scrutiny Of Bids.

In evaluation of the techno-commercial bid, conformity of the eligibility/qualification, technical and commercial conditions of the offered goods to those in the bid document is ascertained. Technical requirement, incorporated in the Appendix-D of tender documents will also be considered in the manner indicated therein. Evaluation will be based only on the conditions included in the tender document.

2.48 Employment By Firms To Officials Of This Organisation.

Firms/companies who have or had business relations with the Organisation are advised not to employ serving employees of this Organisation without its prior permission or within the initial one year period after the retirement/resignation/severance from the service without specific permission of this Organisation. This Organisation may decide not to deal with such firms who failed to comply with the above advice.

2.49 Cancellation /Rescission :

The Bidder shall be liable to pay compensation for any loss or damage to Prasar Bharati resulting from any cancellation/rescission due to the reasons attributable to the Bidder and the Prasar Bharati shall be entitled to deduct the amount so payable from the amount due to the Bidder.

2.50 For The Bidder From A Country Which Shares A Land Border With India

Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. The Competent Authority for the purpose of registration under this Order shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).

"Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

"Bidder from a country which shares a land border with India" for the purpose of this Order means; -

- An entity incorporated, established or registered in such a country; or

- A subsidiary of an entity incorporated, established or registered in such a country; or

- An entity substantially controlled through entities incorporated, established or registered in such a country; or

- An entity whose beneficial owner is situated in such a country; or

- An Indian (or other) agent of such an entity; or

- A natural person who is a citizen of such a country; or

- A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

- The beneficial owner for the purpose of Para 2.33.3 above will be as under:

  o In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means. Explanation—

    ▪ "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company;

    ▪ "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

    ▪ In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

    ▪ In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

    ▪ Where no natural person is identified under Para 2.33.4.1 or Para 2.33.4.2or Para 2.33.4.3 above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

  o In case of a trusty the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person

              exercising ultimate effective control over the trust through a chain of control or ownership.

- o An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

- o The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.(In case of Tenders for Works contracts, including Turnkey contracts)

- o The following Certificate shall be submitted by the Bidder appending to the Technical Bid—

            Certificate to be filled by the Bidder:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Certificate for Tenders for Works involving possibility of sub-contracting:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; / certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered, [Where applicable, evidence of valid registration by the Competent Authority   shall   be   attached.]"

3 Scope of Work

The scope of work earmarked for this project shall be for development, commissioning, hosting, testing, operations, and maintenance of an OTT platform for Prasar Bharati. The scope covers the following broad four areas:

Area 1: Making the Content Ready for Ingestion | Content readiness, MAM, Transcoding etc.

Area 2: Hosting of the Data and Application | CDN, DC and DR etc.

Area 3: OTT Platform development / customization | User Management, Analytics, DRM etc.

Area 4: Operation, Maintenance and Management of the OTT platform | day to day operations of the OTT platform during the operations and maintenance phase

The content that is available with the Prasar Bharati shall be made available in digital format for the OTT platform which will reside in cloud along with the related meta data of the content. The subsequent sections covers the scope elements in details.

3.1 Area 1: Making the Content Ready for Ingestion | Content readiness, MAM, Transcoding

1. Prasar Bharti has most of the content in the LTO 4 / MFX / DV / MOV / MP4 / XDCAM HD422, 50Mbps with 8 bit quantization data / MXF OP1a file format and for SD: DVCPRO 25/50 (8-bit, 4:2:2) in MXF Op1a file format or IMX 50 (8-bit,4:2:2), in MXF Open file format which shall be made ready for the OTT platform which may or may not require the restoration and the Bidder would be required to:
   a. Perform compatibility check for uploading to cloud any digital content received from external source.
   b. The Compatible File format conversion would be required and the formats should be MOV / MP4 / AVI / WMV
   c. Transcode the source file for uploading on to the OTT platform cloud portal.
   d. Shall provide the equipment and resources to carry out the ingest services at Prasar Bharati premises
2. Media Ingestion:

a. Bidder shalldesign, develop, operate and maintain the facility for continuous data transfer (Ingestion) of content from Prasar Bharati to OTT platform hosted on cloud.

b. The Bidder should provide onsite support on official working hours of the weekdays and if required on all holidays by Prasar Bharati to ensure an uptime of 99.95% for the OTT platform application hosted on cloud, the cloud infrastructure, and the IT infrastructure solution at the Media Ingestion Room in accordance with the Service Level Agreement mentioned as part of this tender.

c. The Bidder should commit to provide all necessary manpower resources onsite to resolve any issues/incidents and carry out required changes, optimizations, and modification

d. The Bidder to build a Media Ingestion room at Prasar Bharati premises (upto 250 Sq.Ft space would be made available by Prasar Bharati) to facilitate the Tape Library, Local Central Storage, ingest server, transcode servers, editing and QC workstations along with the required network and network security for secured connectivity

e. The Bidder to ensure secure data transfer from Media Ingestion Room to OTT platform hosted on Cloud

f. The Bidder to ensure that the data transfer to cloud to happens securely & seamlessly and at all times the data remains encrypted

g. The Bidder should ensure that adequate workstations in working condition are made available at the media ingestion room for editing the content / meta data

h. The Bidder to ensure that local central storage is utilized of storing postproduction data and should also facilitate one-time bulk transfer of data from Media Ingestion Room to Cloud

i. Bidder to provide dedicated 1 GBPS link from Media Ingestion Room in Prasar Bharati to On Cloud Data Center and a dedicated bandwidth (1:1) in Media Ingestion Room

j. The bidder should ensure that[1]

    i. Installation & configuration of firewall & IPS is made

---

[1] All the policies shall be fully in adherence to various Meity (GOI) guidelines issued by them from time to time

      ii. Security policy for firewall & periodic review of the firewall configuration are defined and approved by Prasar Bharati

      iii. Incident management structure for firewall & IDS/IPS shall be defined by is defined which would capture log generation, Analysis & Report for Firewall system & IDS/IPS

      iv. Reports for firewall & IDS/IPS shall be submitted by Bidder on monthly basis for information and monitoring of Prasar Bharati

      v. Configure the Anti-Virus Solution according to requirements and ensure that the solution is up to date with the latest patches and upgrades.

  k. It shall be the responsibility of the Bidder to ensure that all security (physical and digital specified in line with MeiTy Standards) measures should be in place in the Media Ingestion Roomto avoid the data leakages

  l. As part of the Media Ingestion Room, the Bidder is also required to:

      i. Multiplex multi-language audios, multi-channel audios and multi-language subtitling to final delivery formats.

      ii. Process corresponding meta-data

      iii. Transcode the content to codec suitable for OTT delivery

      iv. Proposed Subsystem mentioned above of the OTT solution shall allow manual ingestion of new content via a GUI based interface.

      v. Proposed OTT solution shall provide the ability for service provider to Encode/Transcode VOD source contents to format suitable for the delivery over network and consumed by end devices.

      vi. File Based Transcoding

  m. Process the born digital content in a manner similar to the content available in LTO tapes

3. Metadata[2]

  a. The system shall support flexible metadata schemas. Additional metadata field's creation shall be possible and there shall be no restrictions on the number of metadata fields. The system shall support addition of the following metadata field types dynamically: Date field, Text-field, text area, select list,

---

[2] Metadata and Data standards as per Meity should be completely adhered to

select button, multiple select buttons, text auto suggests, hierarchical list, multiple select hierarchical lists, linked lists.

b. The metadata schema for the MAM system must be approved by Prasar Bharati before implementing on the cloud hosted system.

c. Shall be able to generate unique accession no for each of the ingested assets. The accession number shall be based on user defined basic metadata in the standard format like IBTNS.

d. The update of metadata shall be transparent to the users and shall not mandate system restart.

e. Metadata can be exported and imported to and from external systems using open formats like XML/JSON/CSV in configurable schemas.

f. Users shall be able to add metadata to an asset regardless of the status of the asset (pre-ingest, post-ingest etc.). The Proposed MAM system shall allow for metadata tagging for Video, Audio, documents, Office documents, stills, subtitling files, PDF, Image and graphics etc.

g. The system shall be capable of storing not only media files (such as Video and Audio) but also other kinds of documents as standard assets; these documents shall include at least office documents, stills, subtitling files, PDF, Image and graphics etc.

h. Timecode based metadata tagging shall be possible and the option to retrieve a region of interest from an audio and video file shall be possible.

    i. Mark a point (single timecode)

    ii. Timecode based metadata tagging shall be possible and the option to mark a region of interest from an audio and video file shall be possible.

    iii. Timecode tags shall have their own configurable metadata, separate from the main asset metadata.

    iv. Time code ranges shall be convertible to sub-clips, that can be treated as assets in their own right. Sub-clips will not cause new media to be rendered and will relate to the original media.

i. Ability to make metadata fields mandatory to ensure data integrity of each ingested file.

j. Control the media to ingest as well as the metadata to import, schemas can be customized on the basis of different types of content which can be generated manually, automatically or imported via API or sidecar .XML.

k. Extensive metadata generation comprising of ingest, technical and descriptive metadata — allowing for easy cataloguing and retrieval of media

l. Each user-defined field must have a unique identifier, a display name and a specific type that determines both the type of data stored in the field and the user interface for entering that data.

m. Create an asset repository that can automate the delivery of approved, brand compliant content, allowing brands to create an extensive catalogue for digital assets, consisting of video, images, text and metadata

n. The system shall support flexible metadata schemas. Additional metadata field's creation shall be possible and there shall be no restrictions on the number of metadata fields. The system shall support addition of the following metadata field types dynamically: Date field, Text-field, text area, Select list.

o. The metadata schema for the MAM system has to be approved by Prasar Bharati before implementing on the cloud hosted system.

p. Shall be able to generate unique accession no for each of the ingested assets. The accession number shall be based on user defined basic metadata in the standard format like IBTNS.

q. The update of metadata shall be transparent to the users and shall not mandate system restart.

r. Metadata can be exported and imported to and from external system using open formats like XML/JSON in configurable schemas and in addition a editable spreadsheet should also be provided

s. Users shall be able to add metadata to an asset regardless of the status of the asset (pre ingest, while ingest, post ingest etc). The Proposed MAM system shall allow for metadata tagging for Video, Audio, documents, Office documents, stills, subtitling files, PDF, Image and graphics etc.

t. The system shall be capable of storing not only media files (such as Video and Audio) but also other kinds of documents as standard assets; these documents shall include at least office documents, stills, subtitling files, PDF, Image and graphics etc.

u. The system shall allow documents in formats like PDF, JPEG, PNG etc. as one more metadata fields.

v. Time code based metadata tagging shall be possible and option to retrieve a region of interest from a audio and video file shall be possible

w. Ability to make metadata fields mandatory to ensure data integrity of each ingested file.

x. Control the media to ingest as well as the metadata to import, schemas can be customized on the basis of different types of content which can be generated manually, automatically or imported via API or sidecar .XML.

y. Extensive metadata generation comprising of ingest, technical and descriptive metadata - allowing for easy cataloguing and retrieval of media.

4. Media Asset Management (MAM)

The MAM system will contain information about all the assets (Physical andDigital required for MAM) related to all the works that are in possession of Prasar Bharati. The MAM system manages all videos, images, graphics, and documents, and lets users easily find, use, organize, manage, and share digital assets in a Web UI. The proposed MAM system should have following functionalities:

a. The proposed MAM solution shall be poly-cloud, must support all major cloud platforms and be cloud-ready or cloud-enabled.

b. The proposed MAM system shall be based on client-server architecture capable of scaling up without any system restart.

c. The proposed MAM system shall be based on micro services cloud native model.

d. The proposed MAM system shall be redundant in order to achieve high availability; the bidder shall submit supporting documents under technical bid explaining how their system will achieve redundancy on all levels of the solution starting from storage, database, servers to infrastructure.

e. The proposed MAM solution must have a way to configure collaborative workflow between multiple user accounts, clouds and databases when configured in multitenant environment .

f. The Proposed MAM solution shall rely on 'Generic storage' technology (native CIFS)

g. The proposed MAM solution shall provide comprehensive web based administration module.

h. The proposed MAM should be able to centrally upload content with permission level access

   i. The proposed MAM should provide automated AI tagging of video content with learning capabilities and provide search pattern analysis

   j. The proposed MAM system shall be based on client-server scale-up architecture.

   k. The Proposed MAM solution shall rely on 'Generic storage' technology (native CIFS)

   l. The proposed MAM solution shall provide web-based administration module.

   m. API-based integrations with media applications like:
  - i. NLE suites
  - ii. Audio watermarking
  - iii. Video Watermarking
  - iv. Video Restoration applications
  - v. Scheduling & Playout applications

   n. The proposed MAM system shall integrate with directory services like Active Directory, LDAP etc. for users and group management.

   o. Virtualization of video and audio editing applications and integration with other existing MAMs for seamless collaboration across locations.

   p. The proposed MAM system shall have a dedicated search engine based on the metadata schema.

   q. The proposed MAM should provide flexible metadata structure at add/update/delete nodes to create multiple categories

   r. The proposed MAM shall support dynamic workflow creation based on various criteria.

   s. The proposed MAM should create an asset repository that can automate the delivery of approved, brand compliant content, allowing brands to create an extensive catalogue for digital assets, consisting of video, images, text and metadata.

   t. The proposed MAM should provide for multiple storages configurable along with archival mechanisms in place to shift data to lower storage tiers, such as erasure coded LTO, and object storage.

   u. The proposed MAM should support for high availability playback; with ability to support multiple audio tracks, captions, or subtitles during playback.

   v. The proposed MAM should support multiple broadcast quality codecs and MXF wrappers.

w. The proposed MAM should be able to work as a standalone application. However, should be seamlessly integrated with Portals, Web Sites, mobile App using open standard frameworks.

x. The proposed MAM should provide a search window interface with advanced search options. The window should seamlessly search across the data inventory across different catalogues and provide search results in a user-friendly interface.

y. The proposed MAM should be able to seamlessly synchronize with the existing Metadata meeting or exceeding the cataloguing standard is EN 15907 complaint and OAIS compliant

5. Data migration and integration with MAM

a. The bidder is required to undertake the migration of existing data on to the cloud hosted system with a submission of a plan/schedule for migration of data

b. The system proposed to be developed by the Bidder shall support bulk data migration for quick and efficient transport of data on to the cloud.

c. During migration of data, the Bidder shall provide adequate manpower and technical support to complete the work within stipulated time period.

d. Metadata fields of existing MAM system must be matched perfectly with the MAM system provided on the cloud. Additional fields on the metadata schema may be created on the cloud hosted system, if required in order to ensure complete liberation of metadata in respect of Media assets.

e. The supplier shall device data migration tools for the Media Content available in Hard disk drives (HDDs). Prasar Bharati would provide the Media in file format along with Metadata in Excel, and XML format for the purpose.

f. The cloud-based MAM system shall migrate/ingest the metadata, Low resolution copy, High resolution Video file stored on a Storage and LTO tape Library.

g. Prasar Bharati would facilitate all the necessary support in extraction of data from proprietary system/formats. Data migration, validation, and integrity check will be responsibility of Prasar Bharati and the bidderis required to take a signoff from Prasar Bharati before ingesting the same in MAM.

h. 2 months before the completion / termination of contract period, the complete data to be handed over to Prasar Bharati in Open standard format in same /

some other cloud / on-premises Storage. Also the select users at Prasar Bharati needs to be thoroughly trained on the same and a signoff from Prasar Bharati needs to be obtained after successful training of the officials

i. If required, the Bidder needs to liaise with current support vendor and design data extraction tools. The Bidder shall be entirely responsible for data migration, validation, and integrity check.

j. In cases the data is not available and has to be digitized from the existing records, the data entry and validation exercise needs to be carried out. The Bidder would need to:

    i. Create Data Entry Templates based on the requirements

    ii. Train the end users in data entry

    iii. Migrate the data from data entry templates

    iv. Data Validation of entered data by running scripts

k. In such cases, the entire responsibility of the data entry and validating the data and give a sign off on the validated data will be vested with the Bidder

6. Backup of the data

a. The Bidder shall provide for backup management services (conduct regular backups and content corrections , if required), of critical data and systems for data of the Prasar Bharati. The activities cover the following areas but not limited to:

    i. Backup of operating system, database, and application as per stipulated policies.

    ii. Monitoring and enhancement of the performance of scheduled backups, schedule regular testing of backups and ensure adherence to related retention policies.

    iii. Ensuring prompt execution of on-demand backups of volumes, files and database applications whenever required by Prasar Bharati or in case of upgrades and configuration changes to the system.

    iv. Real-time monitoring, log maintenance and reporting of backup status on a regular basis.

    v. Prompt problem resolution in case of failures in the backup processes.

    vi. On-going support for file and Folder restoration requests.

b. The Bidder should define and indicate the preventive maintenance schedule and procedure. Any special tools/ instruments/ equipment's required carrying

out the preventive and break down maintenance of the system offered should be clearly indicated and offered at no extra cost.

7. Subtitling and Language Support[3]

   a. The content available with Prasar Bharati may or may not have the subtitles

   b. The Bidder is expected to provide for the subtitling of the content for both recorded and live streaming with accuracy as per prevailing standard terms. The details of live streaming programs would be provided by Prasar Bharti

   c. On the fly language selection option supporting major India languages viz. English, Hindi, Tamil, Telugu, Kanada, Malayalam, Marathi, Bengali, Punjabi, Gujarati etc. in India should be made available to Prasar Bharti from day 1

   d. Wherever required use of Artificial Intelligence should be made to transliterate the language in any of the Indian languages to begin with which may be further expanded to majorly spoken foreign languages

8. Media Library management

   a. The Prasar Bharati has the following list of artefacts in its library:

      i. Documentaries | ~11,229 Hours

      ii. Drama / Theatre | ~6,223 Hours

      iii. Fair and Festivals | ~818 Hours

      iv. Music | ~2,926 Hours

      v. Dance | ~1,737 Hours

      vi. Folk Art | ~91 Hours

      vii. Outdoor Broadcast | ~5,765 Hours

      viii. Miscellaneous | ~2,678 Hours

   b. The content / media available at these libraries shall be hosted on Media Asset Management System.

   c. The Bidder shall be devising the system with the customized workflows which shall be discussed with and approved by Prasar Bharati

   d. The Bidder shall be responsible to create a centralized repository of all the assets of Prasar Bharati and keep it updated from time to time with the new additions that may happen and shall be as the discretion of Prasar Bharati

   e. The MAM System shall be designed by the Bidder in such a way so that it shall support sharing of media to external users

---

[3]Localisation & Language Technology Standard & "Best Practices For Localization of e-Governance applications in Indian Languages" as per MeITY should be adhered to

    f.   The system shall be able to generate a unique URL, which can be shared to external users so as to download the media asset or a part of it. The validity of the link/URL shall be pre-defined by the authorized user.

    g.   The Bidder shall facilitate the account creation and upload of the OTT platform on the stores of Android, iOS or any other Mobile OS users. The Bidder is required to facilitate the payments as well as platform fees required by the respective stores for a period of 5 years

3.2   Area 2: Hosting of the Data | CDN, DC and DR etc.

1.   Data Centre hosted on Cloud

    a.   The expected minimum scope of work is detailed under this section. The Bidder as required to ensure a smooth experience shall add additional components as they feel are required to meet the requirement given in the Service Level Agreement. The Bidder is also expected to provide the complete solution and fill all the gaps which are not covered in this RFP.

    b.   System Integration Services

Design, Procure, implement, and commission all the OTT platform (active and passive) components required to deliver a complete solution

    c.   System Maintenance Services

Undertake maintenance services of all the components being procured and installed through this RFP to ensure that overall uptime commitment as defined in SLA section (Service Level Agreement) of the RFP

    d.   OS and Database support services

Provide administration, patch upgrade and update management services for OS and Database for the solution for the entire duration of the contract

    e.   Performance Monitoring and Capacity Management Services

Procure, operate, and maintain the monitoring components and provide performance monitoring and capacity management services for the solution by creating a dedicated setup of a Dashboard system which will provide realtime data to Prasar Bharati officials on the hourly basis covering, but not limited to, media ingested, users, advertisements, bugs, buffering issues, screen freeze etc.

f.   Messaging Services

Provide Unified Messaging Services to the all the users of Prasar Bharati

g.   Application Related Services

Provide certain Application related services like Application Maintenance / Enhancement / Migration.

h.   Operation and Maintenance of OTT platform

Provide services related to operations and maintenance of Prasar Bharati OTT platform

The Proposed Cloud Architecture must have aninitial storage capacity of ==500 TB==of data and the storage shall be upward scalable based on the growth and demand in the next five years. In addition to this a deep archival storage on cloud shall be provisioned having a storage capacity of ==~1 PB==of data.

The SLAs defined shall be rigorously followed to ensure a smooth and best performance to the end users

2. Disaster Recovery Center on Cloud
    a. Disaster Recovery Center shall be hosted on MeitY empaneled cloud
    b. Disaster Recovery center shall be a 100% replica of DC (hosted on cloud) and also a 100% replica of security certifications prescribed for the Data Center
    c. It shall be responsibility of the Bidder to ensure uninterrupted operation of Prasar Bharati OTT platform solution at all times to all the users
    d. The SLA defined shall be rigorously followed to ensure a smooth and best performance to the end users
    e. In case of a disaster, when the on-cloud data center's services get affected, it shall be the responsibility of the bidder to ensure uninterrupted services to the user, meeting all the SLA requirements defined in the RFP.
    f. Data in cloud should be stored in encrypted form.
    g. Bidder must undertakeregular third-party application security audits and must share those results with Prasar Bharati.
3. Hosting requirements
    a. The Cloud service provider should be MeitY empaneled.

b. The solution (including the primary and DR sites of the proposed OTT / MAM platform) shall be hosted at Tier IV and SOC 3 / 4 level certified Data centers which must be in NCR (primary site) and different seismic zone in India for DR site.

c. The cloud should be able to offer the solution on a Private cloud model as Software as a Service (SaaS) / Platform as a Service (PaaS).

d. The Bidder has to ensure that adequate (1 GBPS or above) dedicated Internet bandwidth, shall be allocated to the application for accessing, browsing and download.

e. Adequate compute power (CPU/RAM) shall be allocated for the application in order to power the system to work on a fly on mouse click.

f. The OTT system shall be a fully secure web-based solution. The solution shall facilitate multi-OS access to the solution.

g. The system shall be accessible from different web browsers including chrome, Firefox, Safari, Edge etc.

h. Platform responsibilities such as disaster recovery drills, data replication, backups, system maintenance, security, hardware refresh, power management, network connectivity, cyber security etc. are managed by the cloud service provider.

i. Bidder shall provide the information of parameters viz time, bitrate etc. for migration of content in a multi-tier storage.

j. The Cloud service provider shall follow the MeitY guidelines for service conditions as indicated below:

    i. Availability

    ii. Performance

    iii. Security

    iv. Audit and Monitoring

    v. Measurement and Monitoring

    vi. Runtime

    vii. Up-time etc.

4. The bidder shall provide expertise, services, technologies that help Prasar Bharati to keep their vital system secure, available, reliable and recoverable.

5. The cloud Infrastructure/service provisioned by the Bidder must be scalable and flexible. Prasar Bharati should be able to add/reduce cloud infrastructure / services on demand basis.

6. The Cloud service shall be available online, on-demand scalable up or down per request for service from the Prasar Bharati.

7. The CSP should have adequate elasticity to provide additional resources as and when required on auto-scale (up and down both). The complete cloud solution should work in full capacity on auto-scale environment.

8. The solution should have necessary provisions to enable and define the various parameters like triggers/events to achieve the said auto-scale environment without any human intervention based on the criteria/rules decided by Prasar Bharati

9. Content Delivery Network (CDN)

    i. Provider should support a Multi CDN solution to optimize multiple networks

    ii. CDN should support "On Network Storage" to act as origin

    iii. CDN should support HLS Push or Pull to ingest live channels

    iv. CDN should have a Global footprint with Global edge caching and peering across multiple networks

    v. CDN should support token authentication of streams

    vi. CDN should allow Manifest Personalization

    vii. CDN should support Advanced caching including Intelligently cache content close to viewers, offloading traffic from origin infrastructure

    viii. CDN should Scale rapidly for large audiences — planned or unexpected — by leveraging the distributed network's ability to dynamically and intelligently distribute load

    ix. CDN should support segment pre-fetch

    x. CDN Content protection

        1. Protect content with encryption, watermarking, access revocation, and enhanced proxy detection.

        2. The CDN solution securely delivers prepared, pre-segmented, HTTP-based live and on-demand streaming media, including support for the following video formats:

        3. HTTP live streaming (HLS)

        4. Dynamic adaptive streaming over HTTP (MPEG-DASH)

5. Common media application format (CMAF)

xi. CDN should have media reports and log delivery

xii. The CDN solution should support Adaptive Media Delivery optimized for adaptive bitrate (ABR) streaming to provide a consistent, high-quality viewing experience across the broad variety of network types — fixed or mobile — at varying connection speeds

xiii. The CDN should be designed in such a manner that there should be no lag or buffering of the content when watched on any device and on any internet network

xiv. The Bidder shall facilitate the lag free or buffer free experience by coordinating with the leading CDN providers where there are spikes in the users access the OTT platform.

xv. At no given time, the Bidder has to ensure that user experience is compromised due to lags, content buffering or otherwise due to the spike in the users logging into the platform

xvi. In order to be prepared, the Bidder in consultation with Prasar Bharati committee, as far as possible, would identify and prepare the Calander of events which may have high user spikes / numbers joining the OTT platform, especially the Live streaming programs

xvii. For unplanned events, the Bidder has to facilitate the same lag and buffer free experience by coordinating with leading CDN providers to manage the spikes

10. Content Management System (CMS)

i. Proposed solution shall provide a subsystem incorporating tools for content acquisition, processing and distribution. Content refers to media assets, meta-data, and associated supplementary items such as trailers, movie posters, music-clips etc. that need to be streamed to the end devices.

ii. CMSmentioned above shall be integrated with TV Platform as a part of total end- to-end OTT solution

iii. Asset Management Interface shall provide management of asset metadata and associated content

  iv. Proposed CMSmentioned above of the OTT solution shall provide the ability for service provider to perform the following general content acquisition, processing and distribution functionalities;

   1. Multiplex multi-language audios, multi-channel audios and multi-language subtitling to final delivery formats.

   2. Process corresponding meta-data

   3. Transcode the content to codec suitable for OTT delivery

   4. Proposed Subsystem mentioned above of the OTT solution shall allow manual ingestion of new content via a GUI based interface.

   5. Proposed OTT solution shall provide the ability for service provider to Encode/Transcode VOD source contents to format suitable for the delivery over network and consumed by end devices.

   6. File Based Transcoding

  v. Proposed encoding/transcoding solution shall support bandwidth efficient content compression for delivery to Television, Mobile and Internet.

  vi. Proposed transcoding solution shall be based on reliable architecture creating highly available transcoding farm with automatic failover and redundant job schedulers

  vii. Proposed transcoding solution shall provide following configuration and management features;

   1. Batch encoding manager

   2. One-click encoding with presets

   3. Watch folder drop-in directory for tasks such as workflow integration, job queuing, scheduling, and prioritization

  viii. Proposed transcoding solution shall provide the following system control interfaces;

   1. Web-based user interface

   2. System resource and statistics monitoring

   3. Multi-tiered User Authentication

   4. Integrated CDN support: Basic PUT, POST

ix. Proposed transcoding solution shall provide support for following source media containers but not limited to;

1. .MP4, .TS, .3GP, .AVI, .M2TS, .MKV, .MOV, .MPEG (.MPG), .VOB, .WEBM, .WMV, .MXF, .HLS. , DASH, SRT, .RTMP

2. Discrete audio and caption inputs, .WAV, .AIFF, MP4, AC3/EAC3

x. Proposed transcoding solution shall provide support for following source video codecs but not limited to;

1. HEVC / H.265, AVC / H.264, AV1, VP9, MPEG-2

xi. Proposed transcoding solution shall provide support for following source audio codecs but not limited to;

1. AC-3 (Dolby Digital), AAC (LC, LD, HEv1, HEv2), MPEG-1 L2, MPEG-1 L3, MPEG-2 L2

xii. Proposed transcoding solution shall provide following input features

1. Audio only processing

2. Audio PID tracking

3. Audio language tracking

4. Static image overlays

xiii. Proposed transcoding solution shall provide following multichannel audio input capabilities;

1. Unlimited audio tracks

2. Multichannel track assignments and gains per input

xiv. Proposed transcoding solution shall provide following Video processing features;

1. Adaptive Quantization

2. Anti-Aliasing Scaling for reducing distortion artifacts when downscaling

3. ABR, CBR, CQ, VBR, Quality-Defined Variable Bitrate (QVBR), Two-Pass Encoding Modes

4. Colour Correction

5. Cropping (per input and output)

6. Deblocking

7. Deinterlacing (Motion Adaptive Interpolation and Blend)

8. Dithering (Pseudo-random dynamic rounding) for 16-bit Down-Conversions

9. Frame Rate Interpolation

10. HDR 10 Support

11. Lanczos Scaling

12. Linear Scaling

13. Look Ahead Rate Control

14. Minimum I-frame Interval

15. Static Graphics Overlay (Multiple image overlays (BMP, PNG or TGA format), SDR or HDR, Image overlay application to a single input, a single output, or globally, z-order and opacity control)

16. Rec.2020 Colour

17. Noise Reduction (Bilateral, Mean, Gaussian, Lanczos, Sharpen, Conserve)

18. RGB to YUV Conversion

19. Scene Change Detection

20. Variable GOP Support

xv. Proposed transcoding solution shall provide following File output containers

1. MPEG-4 Part 10 (MP4)

2. Fragmented MP4 (fMP4)

3. MPEG Transport Stream (TS)

4. Audio only files for audio applications

xvi. Proposed transcoding solution shall   provide following Streaming Output Formats;

1. Common Media Application Format (CMAF)

2. Apple HTTP Adaptive Streaming (HLS)

3. MPEG DASH (ISOBMFF) for Dynamic Adaptive Streaming over HTTP

4. Single Program Transport Streams (SPTS)

xvii. Proposed transcoding solution shall provide caption/subtitle processing features

xviii. Proposed encoding/transcoding solution shall provide following Video Output Codecs;

       1. HEVC / H.265 (Main, Main 10 up to 4:4:4, Main 12 up to 4:4:4)

       2. AVC / H.264 (Baseline, Main up to 4:4:4, High up to 4:4:4)

xix. Proposed transcoding solution shall provide following Audio Output Codecs

       1. AAC-LC

       2. Dolby Digital (AC-3) Pass-through

       3. Dolby Digital Plus (EAC-3) Pass-through

       4. Audio only support

xx. Proposed transcoding solution shall provide following Audio Output Codecs as purchasable options;

       1. Dolby Digital (AC-3)

       2. Dolby Digital Plus (EAC-3)

xxi. Proposed transcoding solution shall provide following Multichannel Audio Output capabilities;

       1. Unlimited audio tracks

xxii. Proposed transcoding solution shall provide following Multi Language features

       1. Follow language code

xxiii. Proposed transcoding solution shall provide following Features

       1. 4K Ultra HD Output

       2. Audio Level Adjustment

       3. Audio Only Encoding

       4. Multiple Audio Tracks (SAP)

       5. SCTE-35 Support

11. Advance Analytics

    a. The Bidder shall be responsible for building a robust analytics platform for Prasar Bharati OTT platform that will

       i. Provide users with personalized movie and TV show recommendations

       ii. Predict the popularity of original content

       iii. Personalize marketing content such as trailers and thumbnail images

       iv. Optimize production planning

    b. The Bidder is required to build a robust and personalized recommendation engine that will capture the details for the users

       i. Viewing day, time, location and device

      ii.   Platform searches (key words and number of searches)

     iii.   Whether content was paused, rewound, rewatched or fast forwarded. (It even saves screenshots of when the show was paused, when the user left the show, and when the user watches a scene more than once)

     iv.   Content abandonment times and rates

      v.   Browsing and scrolling behavior

c.   The Analytics Engine would be required to not only predict what users are likely to watch next, but arrange selections into rows based on an individual's viewing preferences

d.   The Advanced Analytics should be able to analyze visual data such as composition metadata (aesthetic, heuristic characteristics etc) and contextual metadata (tones, facial and body language / expressions, objects, certain scenes where cautionary statements needs to be ingested etc.) to drive image selection for the generating thumbnails for the users and share the credible data with Prasar Bharati for decision making.

e.   The Robust analytics platform should also be able to suggest relevant advertisements based on the user age groups, watch history, preferences, languages chosen etc. which will help in providing relevant information to the users and increase the revenue stream for Prasar Bharati

f.   Targeted advertisements should be made available to both subscribed and non subscribed based on the relevance of the advertisements to the users

g.   To the extent possible, Artificial Intelligence and Machine Learning algorithms should be used to refine and reuse the data that is generated out of analytics

h.   All the data be it user specific or otherwise shall always 100% adhere toThe Digital Personal Data Protection Act, 2023 / relevant data protection rules and regulations / act in India and there should be 0% deviation from the legalities prescribed

Note: Policy on Adoption of Open Source Software for Government of India as per Meity should be adhered to while developing any application or app.

3.3   Area 3: OTT Platform development | User Management, Analytics, DRM etc

   1. Architecture requirements

i. The proposed solution shall deliver Over the Top (OTT) services with a 100% no lag and buffer free environment from Day 1

ii. The Bidder is expected to develop, manage, operate and maintain the OTT Platform for total of 5 years from Go-Live of Release 1and then handover to Prasar Bharti team or the agency chosen by them

iii. The solution should have Elastic resources to scale up & scale out within mutually agreed time period

iv. The proposed solution shall enable the delivery of OTT services over different access networks (e.g., optical, xDSL, wireless)

v. The proposed solution shall consist of main subsystems, but not limited to;

- Middleware

- OTT Live transcoding system, hardware based (GPU) to reduce Opex costs.

- Integration with several leading Content Delivery Networks (CDN)

- Digital Rights Management (CA/DRM) system

- Support for different levels of High-bandwidth Digital Content Protection (HDCP 1.x, 2.x, 2.2)

- Integration with SSAI /Ad insertion solution

- Ad serving solution can plug into multiple SSP's, programmatic markets and allow for trafficking of direct campaigns

- Ad server should allow running of public service messages,

- Ad server allows for creation of "waterfall" to prioritize ad fills based on percentage of ads, price-based ads or rotation of ads.

- Video/Audio Quality Monitoring system

- Network infrastructure including Firewall infrastructure

- Network management solution

- Comprehensive development/staging environment covering entire solution to test products, packages and services before the commercial launch & simulate customer problems

vi. The proposed solution shall support ABR streaming technologies including, but not limited to;

- Proposed solution system components and CDN components shall be capable of deploy as VNF which could work on SLTVC provided NFVI environment. (optional)

- Common Encryption Scheme (CENC) which provides standard encryption and key mapping methods to use with one or more digital rights and key management systems

- Just in Time Packaging to optimize network efficiency and caching

vii. The proposed solution shall provide the features, functionalities, capacity, performance, and security requirements stated in this RFP.

viii. The proposed solution shall provide rich Application Programming Interfaces[4] (API) which enable third-party application developments accessing platform services.

ix. The proposed solution shall be designed as a dual site active-active deployment to handle 50% load sharing.

x. Bidder shall provide capacity requirement and pricing separately for increasing the load sharing capability after reaching 50% of the design mentioned, up to 100% (DR site) with the granularity of 5% load sharing.

xi. Bidder shall provide the backup site architecture with the capability of linear channel delivery to the active subscriber capacity of the primary site. Bidder shall separately provide the pricing for the backup solution.

2. **Standard requirements**

---

[4] Policy on Open Application Programming Interfaces (APIs) for Government of India as per Meityshould be completely adhered to

i. The proposed solution shall be open (i.e., no proprietary interfaces, etc.), standard based and future proof solution which enable interoperability between third party vendor solutions (API interfaces, etc.) and evolve with latest industry trends and standards.

ii. This subsection specifies standard compliance requirements of the proposed solution. In case the system has not implemented any requirement(s) stated in the standard, Bidder shall clearly state the justifications for not implementing particular requirement(s).

iii. The proposed solution shall support ABR streaming technologies, but not limited to;

- MPEG-DASH 2nd Edition Specification as per ISO/IEC 23009)

- Apple HTTP Live Streaming (HLS)

- Common Media Application Format (CMAF)

iv. The proposed solution shall be able to support at least five profiles starting from 128kbps for resolution from 128K to 4K resolution with configurable size of 64kbps granularity for a single video stream.

v. The proposed solution shall support,

- H.264 aka MPEG-4 Part 10 'Advanced Video Coding' (AVC) as per ITU-T H.264 and ISO/IEC 14496-10

- H.265 aka HEVC as per ITU-T H.265 and ISO/IEC 23008-2

- AOMedia Video 1 (AV1)

- Seamless adoption of future audio-video coding techniques

vi. The proposed solution shall support below for the integration with 3rd party Ad server

- Video Multi-Ad Playlist (VMAP)

3. **Feature requirements**

i. Select features and functionalities as decided by Prasar Bharti, and mentioned in this RFP and the supported list of the proposed solution shall be provisionable and chargeable as an individual

product/service to the subscriber or product/service bundle to the subscriber.

ii. The proposed solution shall be able to provide OTT services for,

- Individual user

- Family user (subject to max 5 profiles)

iii. The proposed solution shall uniquely identify the customers using either an Account Number or a unique username.

iv. All subscribers shall have a defined life cycle for below status (but not limited to) with validity period where service will be terminated with the expiration of the validity period,

- Idle

- Active

- Suspended

- Terminated

- Cancelled

v. The proposed solution shall facilitate the subscriber to activate/deactivate product/service via the user interface and self-care portal subjected to conditions imposed by Prasar Bharati from time to time.

vi. All media content of the proposed solution shall support up to:

- Radio Streaming 96K,128K etc.

- Standard Definition (SD) 576i/50

- High Definition (HD) 1080p/60

- Ultra HD/4K p60

vii. The proposed solution shall support A-la-carte feature so that subscriber can self- purchase channels, packages and contents via the UI/Self-care portal/Client App. Subscription changes shall accordingly reflect on middleware and back-office systems (OSS/BSS).

viii. Bidder shall propose any other services/features which are available as Out-of-the-Box with the proposed solution.

ix. Bidder shall provide a list of services and features available in the solution road map.

x. The proposed solution shall deliver below features for OTT service requirements

- Linear TV

  o Channel numbering can be configurable based on the customer segment or category

  o Same channel with different resolution (SD/HD/4K) shall be able to configure as same channel number based on the customer segment or category

xi. Time-Shift TV (TSTV)

  o The proposed solution shall provide below types of services.

    ▪ Catch-Up TV

    ▪ Delayed TV (Applying trick play controls on live content)

- Time-Shifted content shall be accessible via EPG for play back and play back shall be stopped at the end of the EPG event

xii. Video on Demand (VoD)

xiii. The proposed solution shall provide the support for purchasing of VoD assets through the client application and self-care portal.

xiv. VoD libraries shall be configured based on the customer segment or category

xv. Same VoD asset with different resolution (SD/HD/4K) shall be configured based on the customer segment or category

xvi. VoD assets shall be configured as Transaction VoD (TVoD) as well as Subscription VoD (SVoD)

xvii. The proposed solution shall be able to categorize VoD content into multiple categories, but not limited to;

- Movies on demand

- Educational

- TV Series, including support of Seasons and Episodes

- Documentary

xviii. The proposed solution shall provide trick play options, not limited to:

- Play

- Pause

- Fast-forward (different options - .5x, 2x, 4x, etc.)

- Rewind (different options - .5x, 2x, 4x, etc.)

xix. The proposed solution shall support HTML5 or other latest web technologies for the user interface.

xx. The proposed solutions shall provide

- Multiple user profiles (multiple OTT clients) shall be given to a single Prasar Bharati customer where billing will be done to the customer.

- Multiple user profiles shall be identified uniquely within the solution and authenticated by a single authentication credential or multiple credentials which shall be configurable per customer.

- The proposed solution shall have a maximum of 5 profiles given to a customer

- The proposed solution shall be able to limit the number of devices per customer and limit shall be defined for each customer or customer segment.

- The proposed solution shall be capable of accessing the user profiles across the authenticated customer devices.

xxi. Multiscreen

- The proposed solution shall provide multi-screen service to end-user where Prasar Bharati customer will be able to enjoy services from anywhere using any device (devices mentioned in this RFP).

- The proposed solution shall allow customer to begin viewing on one device, then continue viewing on another device

- The proposed solution shall be able to maintain,

  - Common subscription among primary and secondary devices

  - Individual subscriptions among primary and secondary devices

- The proposed solution shall enable simultaneous access of services from primary and secondary devices provided with required subscriptions.

- User shall be able to use mobile/tablet devices to search, discover, and research content and then open and watch it on another screen (i.e., TV or OTT client).

- The proposed solution shall be able to limit the number of devices per subscriber

xxii. On-screen messaging

- The proposed solution shall provide capability to send emergency alerts, App updates, and credit control messages to the OTT client based on the subscriber group.

- The proposed onscreen messaging capability shall be available to use for content and channel promotions.

xxiii. Advertisement supported functionality

- The proposed solution shall provide advertisement insertion solution(s) for OTT subscribers by inserting or replacing video advertisements in a fully automated manner;

  - Linear content (Live TV)

  - On demand content (VoD, SVoD, TSTV, etc.)

  - Freemium Offerings

- The proposed solution shall provide Pre-Roll and Mid-Roll advertisements based on their position or placement in the video playback.

- The proposed solution shall provide configurable Mid-Roll ads based on the placement and number of advertisements.

- The proposed solution shall support below triggering mechanisms;

  o SCTE-35

  o Time based – every 20 mins, 1 hour, etc.

- The proposed solution shall provide an end-to-end solution for server-side ad insertion (Video Ad Server / Server Side as Insertion; SSAI).

- The proposed solution shall enable SSAI to deliver dynamic ad insertion, allowing the targeting of users by IP address and device.

- The proposed solution shall support personalized and targeted advertisements based on;

  o User profiles/preferences

  o Content types and metadata info

  o Geography or Demographics

  o Device capabilities and types

- The proposed solution shall provide comprehensive reporting which allows for;

  o Real-time analytics on ad usage and statistics

  o Understanding and monitoring of ad sales performance, at both macro and micro levels

  o Insights that inform real-time decision-making and yield optimization

  o Campaign/Promotion information

- The proposed solution shall be able to extend ad usage and statistics via standard API for advertisers.

- The proposed solution supports VAST and VMAP as defined by the Interactive Advertising Bureau (aka IAB).

- The proposed solution shall utilize a video ad server that;

    o accesses a suite of industry-leading tools from a single real-time dashboard

    o enables trafficking

    o prioritizes campaigns based on multiple simultaneous criteria

    o monetizes ad inventory

    o maximizes revenues

- The proposed solution shall utilize optimization algorithms and yield management engines to achieve;

    o optimal fill / sell-thru rates

    o maximum results for all advertising campaigns

    o The proposed solution shall enable the creation of a waterfall to sell inventory and optimize yields via;

    o direct sales efforts

    o programmatic advertising

    o supply-side platforms (SSPs)

    o ad marketplaces

    o The proposed solution shall allow unsold / 'remnant' inventory to be filled by:

    o Promotional messages for Prasar Bharati's content and services

    o Public Service messages

xxiv. Subscriber management

- The proposed solution shall provide features in terms of subscriber management, but not limited to;

    o Basic provisioning (Subscriber/Product provisioning)

    o Mass provisioning (Subscriber/Product provisioning)

xxv. Services & Feature management

- The proposed solution shall be capable of disabling services in the Main Menu by customer category.

xxvi. Billing policy /subscriber charging management

- The proposed solution shall provide features in terms of charging management, but not limited to;
  - Basic service billing (Event/Time Based)
  - Online transactions with integration with leading payment gateways
  - Bundled service with any or all of the leading telecom service providers

xxvii. Product and packaging features

- The proposed solution shall be able to provide multiple packages allocating any number of channels and any type of channel.

- The proposed solution shall be able to configure packages by restricting selected contents (Channels, VoD, SVoD) and subscribers shall be able to view only the allocated contents.

- It shall be possible to define additional channels for a given package by allocating single or multiple channels selecting from the remaining channels.

- The proposed solution shall be able to provide cross product validation. Ex: To subscribe to SVoD package X it is mandatory to have a subscription for al-a-carte channel package Y.

- The proposed solution shall be able to configure products associating multiple titles / assets.

- The proposed solution shall be able to associate a single content title to multiple products.

- The proposed solution shall provide product bundling of different types of products and service provision-ability.

- The proposed solution shall provide both transaction and subscription purchase options for the same content.

- The proposed solution shall provide business rule configuration upon product and packages.

- The proposed solution shall provide promotional vouchers on products and packages.

- The proposed solution shall support online and offline charging options.

- Business rule configuration

- The proposed solution shall provide the below dynamic business models which is configurable and testable within the click of a button,

  o Cross selling and Up selling

  o Bundle offers

  o Subscription based offers (Ex: SVoD)

  o One-time sales

  o Trial entry programs

  o Daily, weekly, monthly, quarterly, annual and seasonal subscriptions

  o Product mix offers

xxviii. Network management solution

- Smartphone/Tablets with any version of Android, iOS and Windows via compatible App. As a business rule, the OTT platform / app should be able to seamlessly play on the OS version which is one version above the last supported version by Android, iOS and Windows or similar

- Desktop/Laptop PC with any version of Chrome, Firefox, Safari and Microsoft Edge via web-based GUI

- The proposed solution shall provide below functions, but not limited to;

  o Subscription management - inquiries service, order service, modify service, and cancel service

  o Reporting – viewing, creating operator allowed reports

  o New subscriber registration for OTT with simplified steps (e.g.: Mobile number-based self-care profile creations)

- The proposed solution shall be able to add new TV packages/products (linear TV) to the portal where new and existing subscribers can order, upgrade etc.

- The proposed solution shall provide zero touch OTT user sign up where new subscribers shall be provisioned automatically via web portal without operator intervention.

- Existing subscribers can change their subscription level and have it updated in the back- end automatically without provider assistance.

xxix. End User Device Requirements

- The proposed solution shall support below end user devices, but not limited to;

- Mobile phones (Operating Systems with Android and IOS).As a business rule, the OTT platform / app should be able to seamlessly play on the OS version which is one version above the last supported version by Android, iOS and Windows or similar

  o Browser Based Video for Apple, Window or Linux based Browsers.

  o Digital Media Players such as Amazon Fire TV Stick, Roku, etc.…

  o The proposed solution shall support different types of operating systems of the end user devices.

  o Downloadable App for Android

- o Downloadable App for iOS

- o Connected/smart TV App/web application

- o Web based application for Windows/Mac/Unix flavors

- o Apple TV, Amazon Fire, Roku, Android TV

- The Biddershall provide a list of devices which are supported by the proposed solution, including browser/operating system version details.

- All upgrades and versions of the client App shall be provided at no cost to Prasar Bharati during active support contract

- The proposed solution shall provide,

  - o Application downloads from native App stores (such as Apple store, Google Play Store, Windows store etc.)

  - o Upgrade services

  - o Push notification services

xxx. The proposed solution shall support remote software/firmware update/upgrade

xxxi. The proposed solution shall support below (but not limited to) for App based clients,

- User shall be able to download the video client App from a relevant App Store.

- User registration & provisioning shall be done via Prasar Bharati client App.

- User registration & provisioning shall be done automatically via one time password which shall be received via E-mail and SMS.

- One-time password received to the device shall be read automatically by provisioning process to avoid manual intervention of the user.

xxxii. In case the user wants to use a secondary device (e.g., Multiscreen) to access services, QR code, primary device authorization mechanisms should be available

- Capability to play back multiple audio and video formats Multiple audio tracks/subtitles supportability and selection supportability with the language descriptor according to ISO 639-2

- Customized App support

xxxiii. UI/UX requirement - The proposed solution shall provide easily navigable user-friendly UI/UX for OTT clients

xxxiv. The proposed solution shall provide

- SD UI

- HD UI

- 4K UI

xxxv. The proposed solution shall be built with latest UI/UX technologies

xxxvi. The proposed solution shall provide the navigation capability to any feature or setting within five levels or clicks.

xxxvii. The proposed solution shall provide channel memorizing capability where last viewed channel shall be displayed upon client reboot.

xxxviii. The proposed solution shall provide multilingual support where multiple languages (to be determined) can be used for the subscriber User Interface.

xxxix. The proposed solution shall provide content related controls for Password settings, by the customer and the service provider

xl. The proposed solution shall provide listing of favorite channels/content for quick navigation using UI and single click in App.

xli. Minor updates and bug fixes shall be provided at FOC to Prasar Bharati.

xlii. UI upgrades,design changes and additional features shall be provided to Prasar Bharati. All such changes shall be FOC (Free of Charge) to Prasar Bharati.

4. **Capacity, scalability and performance requirements**

i. The proposed solution shall be scalable up to 10 Crores Subscribers.

ii. The proposed solution shall be highly scalable in terms of subscriber capacity, number of linear and non-linear channels, concurrent sessions, and feature additions.

iii. The proposed solution shall be able to expand without affecting the services and operation.

iv. Bidder shall propose an initial hardware capacity of 2.5 crores subscribers.

v. Bidder shall arrange necessary capacity expansions for the solution as requested by Prasar Bharati within maximum of two (2) weeks for software licenses and within maximum of three (3) months for hardware expansions. Efforts should be made to do this earlier than the maximum time prescribed.

vi. The proposed solution shall ensure below listed performance parameters (but not limited to) irrespective of any load of the system inclusive of network delays for OTT service delivery.

- Page loading (opening quick menu pages, grid menu, page traversing from one page to another, etc.) shall be less than 1 sec.

- Parallel content ingestion shall be supported up to 3 parallel ingestions.

- Changes to the published metadata shall be within 30 (thirty) minutes.

- Last minute program schedule changes shall be accommodated immediately for channels with linear and TSTV enabled

5. Security requirements

i. The proposed solution shall ensure comprehensive security to provide Confidentiality, Integrity & Availability.

ii. The proposed solution shall conduct vulnerability assessment on all the system components during the implementation phase to ensure secure implementation.

iii. Bidder shall conduct vulnerability assessments on system components semi-annually or during system upgrades or system component changes.

iv. Bidder shall rectify all the identified vulnerabilities during internal and external vulnerability assessments.

v. The proposed solution shall provide

- Subscriber authentication including device authentication

- Content security using robust DRM, ACP or any other format

- Password security policies

- Protocol security using secure protocol for communications

- Session management security

- Attacks (DDOS, MiM, etc.) prevention

- Protection of sensitive data storage and transmission

- Security measures in Operating System and Database

- System user management

- Log management

- App security including prevention of App hacking, hijacking, etc.

- Mobile clients shall be able to detect rooted or jailbroken devices and restrict content playback/download which is not allowed to be played on such devices or limit the resolution to 320 x 240 at a bit rate not exceeding 300 kbps.

- Anti-fraud automation

- Any other security provisions as entrusted by MeiTY from time to time

vi. The proposed solution shall support enabling of encryption for all or selected channels and other media contents.

vii. The proposed solution shall adapt secure communication between,

- OTT client and Platform

- Platform and External systems (such as OSS, BSS, SMSC, etc.)

viii. The proposed solution shall provide role-based access control for management interfaces

ix. The proposed solution shall provide enforcing password policies (mixed character enforcement, password expiration etc.) on all the management interfaces.

x. The management interfaces and all the external interfaces shall be secured with SSL certificate authentication system.

xi. The proposed solution shall consist with proper security mechanism (perimeter security, web filtering, IDS, IPS etc.) when interfacing third party systems. Bidder shall clearly describe the security mechanism deployed within the proposed solution.

xii. The proposed solution shall include security mechanism for inter server / service communications (i.e., Internal firewall).

xiii. The proposed solution shall maintain proper log management function that records and stores all logs for at least three (3) months to capture all actions carried out by the users (Internal & External).

xiv. The log management of the proposed solution shall have the capability to integrate to a higher level SIEM application and/or third-party log management solution for further security analysis.

xv. The proposed solution shall comply the security aspects and following standard specifications but not limited to

- Proposed solution should protect from OWASP most critical (top 10) web and mobile application security risks

6. **User Management**

i. There shall be a dedicated module for user management in the MAM System. The system shall support multiple users, user groups as per their rights, categories, libraries, etc.

ii. The administrator shall be able to define various categories, user groups as per the requirement. The rights/roles on media assets in respect of various users, groups shall be administered by the system administrator.

iii. The system should provision for Single Sign on facility for the users

iv. The user account must support Two Factor Authentication

v. Initially 50 nos. of users shall be created. The user management console shall be able to provide information like User Profile, Access rights, on media/group of media in respect of users. The offered system should be capable of adding more users as per instant requirement of Prasar Bharati.

vi. Users at different locations shall be able to share assets with others.

vii. The solution shall be able to deploy and configure password policy as decided by Prasar Bharati.

viii. The application shall support role-based access control to enforce separation of duties.

ix. The application shall not store authentication credentials on client computers after a session terminates.

x. Users' activities shall be recorded as logs and shall be available as users wise report.

xi. Any information stored within cookies must not be disseminated to third parties without the users' consent.

xii. Workflow management with priorities set against each workflow.

xiii. Users can search for assets via a multitude of options as well as product codes and smart search capabilities, which allow for easy identification of assets through extensive metadata cataloguing.

xiv. Users can gain precision access to video, images and supporting documentation.

xv. The system shall be able to define transcode, email notifications, and quality control using 3rd party tools.

xvi. The solution shall have user authentication mechanism to ensure only users with appropriate rights can access the workflow manager.

xvii. The solution shall have the option to manage workflows that have already been triggered (stop, start, retry, cancel, etc.) and monitor the progress via a web interface.

xviii. The system shall have the ability to troubleshoot a workflow.

xix. The system shall be able to send email and text messages notifications.

7. Reporting requirements

i. The proposed solution shall provide an extensive monitoring and reporting solution for OTT platforms which proactively collects/extracts statistics on operational data, health, performance data, service subscriptions and usage information.

ii. The proposed solution shall fulfill reporting requirements for all the OTT clients across all the user devices with relevant segregations.

iii. The proposed solution shall provide

- Real-time monitoring on resource and service performance KPIs

- Dashboards view of resource and service performance KPIs

- Offline reports – scheduled and customized report generation

- Capability of analyzing trends and generating forecast reports

- Role-based access for the reporting module

iv. The proposed solution shall have the capability of

- Grouping

- Filtering

- Scheduling

- Backdating

- Getting summary or detail reports, if applicable

v. Service provider end reporting

- The proposed solution shall have a web-based GUI that supports generation of reports accessing real-time and past data for OTT service deliveries to make informed decisions about user base, content and monetization ways.

- The report module shall have customizable dashboard views and reports, which shall be available in numerical and graphical user configurable formats.

- Bidder shall provide the list of reports that are currently available with the solution.

- The proposed solution shall have the capability to download and save reports in PDF, HTML, MS Doc/excel, csv, etc. formats.

- The proposed solution shall provide reports for national PoPs which shall be visualized in geographical maps.

- The proposed solution shall be able to provide raw data (subscribers, statistics, etc.) to a 3rd party analytic solution.

- The proposed solution shall provide below types of reports (but not limited to),

  - Customer detail reports with the attributes of name, username, address, connected devices, purchased services, etc.

  - Customer Purchase information

  - Snapshot of total billable subscriptions (Basic/Channel/SVOD Packages)

  - Total subscriber base including terminations

    - Customer wise viewership history – For a particular customer, viewership history of Live TV, TSTV, VOD and SVOD

    - Content wise viewership reports capturing total minutes viewed on a daily basis, aggregated to defined periods. Aim is to define revenue share percentages for content providers based on watched minutes.

  - Daily content streaming reports

8. System requirements

  i. Availability Requirements

- The proposed solution shall ensure 99.999% availability.

- The proposed solution shall be designed in such a way that there is no single point of failure.

- The proposed solution at the production site shall provide a highly available architecture with load sharing.

- The proposed solution shall ensure service availability during site disasters.

- Bidder shall clearly detail the architecture and design of the solution to be a highly available, fully redundant, fault tolerant solution

ii. Content management

- Assets and rights management

- Geo-blocking: ability to whitelist or blacklist content on an asset-by-asset basis or package basis by IP Address, country

- Subscriber management

- Preference and profile management

- Products & billing management

- Content fulfilment & delivery

- EPG publishing

- Customer self-care management

- Content recommendation engine

iii. OTT Live Transcoding system

- The proposed solution shall provide real time software based transcoding system for OTT delivery

- Proposed transcoding solution shall support bandwidth efficient content compression for delivery to managed network, Mobile and Internet.

- The proposed transcoding system shall support the following input streams (but not limited to);

  o SDI/HDMI/IP

  o Unicast/Multicast

  o HLS

  o SRT

  o RTMP

- Proposed transcoding solution shall provide following Video processing;

  o Key frame alignment

  o Resolution changes

  o De-interlacing. (Motion Adaptive Interpolation and Blend)

  o Static Graphic/Logo Overlay (Multiple image overlays)

  o Adaptive / fixed GOP structure & size

  o Scene change detection

- The proposed transcoder shall support following output Video specifications;

  o H.265 / HEVC

  o H.264 / MPEG-4 AVC

  o AV1

  o HD / SD / LD video resolutions.

  o Multi profile video resolutions for 4K, HD and SD sources

  o Up to High Profile Level 4.1 for HD & SD sources

  o Main 10 Level 5.1 for 4K sources

  o Support for 4:2:0 video sampling

  o PAL video format support

  o 4:3 and 16:9 video aspect ratio

  o 150kbps to 25 Mbps video encoding bitrate for profiles

  o CBR, Capped VBR, VBR encoding rate control support

- The proposed transcoder shall support the following output Audio specifications;

- o Multi-bitrate transcoding based on the output profile

- o Up to 4 stereo audio channels for single profile (Multi audio output) 32, 48, 64, 80, 96, 112, 128, 160, 192, 224, 256, 384, 512 Kbps

- Audio encoding Formats;

  - o AAC-LC

  - o HE-AAC

  - o Opus

  - o Dolby Digital (AC-3) Pass-through

  - o Dolby Digital Plus (EAC-3) Pass-through

  - o Dolby Digital E Pass-through

- Proposed transcoding solution shall provide the following Audio Output Codecs as purchasable options;

  - o Dolby Digital (AC-3)

  - o Dolby Digital Plus (EAC-3)

- Proposed transcoding solution shall provide the following caption/subtitle outputs;

  - o TTML

  - o WebVTT

- Proposed transcoding solution shall provide the following output container formats (but limited to);

  - o MPEG2 transport stream encapsulation.

  - o Fragmented MP4 (fMP4) stream encapsulation

- Proposed transcoding solution shall be able to output compliant with following technologies;

  - o Common Media Application Format (CMAF)

  - o Apple HTTP Adaptive Streaming (HLS)

- o MPEG DASH (ISOBMFF) for Dynamic Adaptive Streaming over HTTP

  o MPEG-2 Transport Streams (MPEG-TS)

- Proposed transcoding solution shall provide the following system control interface;

  o Web-based user interface

- Transcoders shall have built in I/O modules AV INPUT / OUTPUT interfaces within the equipment.

- The proposed transcoder shall offer high availability, reliability and robustness.

- The maximum delay of proposed transcoding solution less than 2 Seconds.

- The Real-time transcoder shall be set up in high availability environment with automatic / manual failover

- The Real-time encoder shall have redundant Gigabit Ethernet ports.

- The Real-time transcoder shall have a configurable NIC output configuration:

- The proposed transcoder shall support internal test pattern generation.

- Proposed transcoding solution shall provide following Features;

  o Audio Level Adjustment

  o Burned-In Timecode and Captions

  o Caption Extraction and Pass-through

  o SCTE-35 Support

9. **Content protection & conditional access system / Digital Right Management**

   i. The proposed OTT solution shall include Digital Right Management (DRM) which shall be a highly scalable and reliable solution.

   ii. The proposed solution for DRM, shall be globally accepted by known content providers such as HBO, SONY, CNN, ESPN, Discovery,

STAR India, NGC, etc. without any hesitation. Proof of acceptance for the proposed solution from at least any two of the above content providers shall be provided.

iii. The proposed solution shall be providing DRM and content consumption transparency across all networks and all devices.

iv. The proposed solution shall be an agnostic approach to streaming formats.

v. The proposed solution shall provide Multi DRM support for device specific DRMs such as FairPlay, Widevine, and PlayReady.

vi. Platform shall be able to integrate with new DRM providers and technologies.

vii. The proposed solution shall be based on Public Key Interface (PKI) security and trust model

viii. The proposed solution shall provide device authentication and streaming encryption.

ix. The proposed DRM solution shall be delivered from a cloud-based solution.

3.4   Area 4: Operations & Maintenance

Following is the summary of operations and maintenance services to be provided by the Bidder to be performed under the supervision of Prasar Bharati. It shall include but not limited to:

1. **Media Ingestion Room**

   1. The Bidder shall provide comprehensive onsite support on official working hours of the weekdays and if required on holidays by Prasar Bharati basis to ensure an uptime of 99.95% for the OTT Platform application hosted on cloud, the cloud infrastructure, and the IT infrastructure solution at the Media Ingestion Room in accordance with the Service Level Agreement mentioned as part of this tender.

   2. The Bidder shall commit to provide all necessary manpower resources onsite to resolve any issues/incidents and carry out required changes, optimizations, and modification.

   3. The Bidder shall assign onsite manpower resources on official working hours of the weekdays (i.e., 9:30am to 6.30 pm) and if required on holidays by Prasar Bharati to diagnose, troubleshoot, and resolve issues related to the Media Ingestion

Room services and Enterprise solution. The onsite support staff should possess capability for supporting the equipment and components proposed, but not limited to undertaking preventive and break-fix maintenance, troubleshooting, resolving problems, tuning, etc. The Bidder shall also provision for necessary offsite support to ensure continuity of operations for OTT Platform.

4. The Bidder shall provide comprehensive technical support services for all the hardware and software proposed for the entire period of the contract. The technical support should include all the upgrades, updates and patches that are released by the respective OEMs during the period of contract.

5. The Uptime and runtime of the necessary infrastructure at the Media Ingestion Room shall be the responsibility of the Bidder and he has to ensure that the same is available and running 24X7X365 for entire duration of the contract

6. All the activities undertaken in the Media Ingestion Room like media ingestion etc. shall be submitted to Prasar Bharati in form of a comprehensive report

2. Cloud Hosting

The Bidder shall be responsible for providing 24*7*365 days support for Prasar Bharati Enterprise Solution on Cloud infrastructure for 5 years from Go-Live of Release 1. It shall include but not limited to:

1. Compliance process to the defined international standards and security guidelines such as ISO 27001, ISO 20000:1, for maintaining operations of cloud and ensuring privacy of Prasar Bharati data

2. Ensuring Uptime and utilization of the cloud resources as per SLA's defined in this RFP

3. In the event of a disaster at cloud DC site, activation of services from the cloud DR site is the responsibility of The Bidder. The Bidder shall develop appropriate policy, checklists in line with SOC 3 / 4, ISO 27001 & ISO 20000 framework for failover and fall back to the appropriate cloud DR site. Cloud DR drills needs to be performed by the Bidder half yearly to check disaster preparedness.

4. The Bidder shall conduct vulnerability and penetration test at their cost (from a third-party testing agency which should be CERT-IN empanelled and approved by Prasar Bharati) on the Cloud facility every 6 months and reports should be shared with Prasar Bharati. The Bidder needs to update the system in response

to any adverse findings in the report, without any additional cost to Prasar Bharati. All such activities shall be reported to Prasar Bharati in form of a monthly report the format of which shall be provided by Prasar Bharti subsequently

5. Upgrades - Any required version/Software / patch management etc. on the Cloud will be supported by the Bidder for the entire contract period at no extra cost to Prasar Bharati

6. The Bidder is required to provision additional VMs when the utilization exceeds 90%

3. Prasar Bharati OTT platform

The Bidder shall maintain and Support the OTT platform and Webportal for a period of 5 years after the successful GoLive of Prasar Bharati website. It shall include but not limited to:

1. Upgrades, which would include version releases made by the Bidder to incorporate technological changes, consolidating all bug fixes, consolidating all enhancement requests made by Prasar Bharati

2. Modifications would include minor changes, bug fixes, error resolutions and minor enhancements that are incidental to proper and complete working of Prasar Bharati website. Any UI / UX change shall be considered as part of the maintenance activity. However, in case the application goes under a service layer / business layer change, then the same may be considered as part of the Change Request.

3. Enhancements would include changes in the software due to Statutory and Regulatory changes and changes required due to changes in industry and other Governance practices in India.

4. Any changes required on the design / placement of the elements or the contents on the home page or any internal page/s of the website.

5. Any change request would be mutually agreed between the Bidder and Prasar Bharati as per the change request clause.

6. Maintenance and up keeping of any upgrades of the solution.

7. Providing all software updates and patches released by the OEM (if applicable), update and patch management, resolution of any issues / problems with the solution etc.

8.   Resolution of errors / bugs (if any), software updates, changes in the software that may be necessary due to legal/statutory changes etc.

9.   Troubleshooting of any incidents, issues, bugs, errors etc. reported with regards to any application and rectification of same within time of issue logged as per timelines of SLA.

10.   Provide handholding support and training services as part of the post implementation services, on a scheduled basis as well as on a need basis.

11.   Perform system administration tasks such as managing the user access, creating, and managing users, preparing MIS reports etc.

12. Performance tuning of the Prasar Bharati websites to ensure adherence to SLAs and performance requirements as indicated in the RFP.

13. User support in case of technical difficulties in use of the software solution, answering procedural questions, providing recovery and backup information, and any other requirement that may be incidental.

14. Prompt receipt, analysis and reporting of reported deficiencies in the operation of the website solution and supply of information and advice on such deficiencies.

15. Unscheduled, on call, corrective and remedial maintenance, and support services.

16. Integration of existing and envisaged 3rd party, software modules, API's, web-views as per the requirement of Prasar Bharati

17. At the end of term of 5 years, Prasar Bharati may continue services and extend the term of the contract depending upon the performance of the Agency. However, in case Prasar Bharati wishes to engage a new Agency for support / maintenance or any other enhancements, The Bidder shall be responsible for handover to new Agency appointed by Prasar Bharati within a period of 2 months with all necessary documentation, source code, etc.

3.5   Application Testing and User Acceptance Testing (UAT)

Application Testing Once the application development / customization have been completed by the MSI, the MSI will thoroughly test the application at their end. Detailed test plans, test cases and test reports will be prepared by the MSI and then submitted to the Department for approval. The MSI must carry out Unit Testing, Integration Testing and

System Testing as per the Department approved plans and the SI must submit all Testcompletion reports to the Department after the end of each testing phase. Only after the entire functionality, performance and quality-of-service requirements of the solution as mentioned in this RFP or as later approved by the Department during design phase have been tested satisfactorily by the MSI, will the solution be handed over to the Department for User Acceptance Testing. The MSI will also have to create a Regression Test Suit for the Department. This will consist of end to end test cases across all the modules of the Prasar Bharati Application. This Regression Test suit needs to be executed following any changes in the system throughout the duration of the contract and its test results are to be submitted to the Department. The MSI will have to also periodically update and refresh the Regression Suit throughout the duration of the contract.

3.6   Documentation

The selected SI shall prepare documents as mentioned below, but not limited to:

- FRS/SRS/Use Case/Gap Analysis Report

- Detailed Bill-of-material and Infrastructure sizing report

- Solution design and architecture

- Configuration files of the infrastructure DC & DR

- User manuals

- Standard operating procedures

- Information security management procedures

- Business Continuity plan and Disaster Recovery plan

• Any other required documentation The documentation should be in line with defined industry standards. The selected MSI should obtain signoff on all the deliverables (documents and milestones), including design documents, standard operating procedures, security policy, procedures from the Department, etc. and shall make necessary changes as recommended before submitting the final version of the documents

3.7   User Training

The selected MSI would be required to provide training on various aspects to enable effective use of the new system to achieve the envisaged outcomes. The scope of work of the selected MSI is described in this section.

Preparation of Training material

- Training Plan: The selected MSI would be required to prepare a detailed training plan covering at least the trainings to be conducted, targeted audience, location, dates for training, duration and training content. The training plan would be submitted to the Department as per timelines mentioned in this RFP for feedback and approval from the Department.

- Training Materials: The MSI will have to create training materials for all the Training Programmes Approval for training materials prepared should be obtained from the Department at least 2 weeks before delivery of the training program. Additionally there should be online versions of all the training modules. These online training modules will be made available to only the eligible users. Please Note: The training requirements mentioned are minimal requirements which may be later revised by the Department.

Training Programmes

- It would be MSI's responsibility to set up the entire Infrastructure helpful in providing successful Training to the officials like, computer, network, printer, LCD projector, screen, printed course material and consumables like pen, writing pad, Utility Software CDs (optional) etc.

- The schedule and the training material for imparting training shall be developed by the MSI in consultation with the Department. The SI shall submit a softcopy (CD) and hardcopy of the training material to the Department Team before every training session. The softcopy should be uploaded on the Intranet for future reference for employees of the Department.

- Functional training on all Prasar Bharati modules should be made available. This should be included in the Rules for new induction, transfers and promotion. The department needs to provide the necessary inputs for preparing the training material. MSI should make software available for these trainings.

- A detailed training schedule, including the dates, areas to be covered, time and the training literature (to be supplied by MSI to the department) at various stages of the cycle and feedback for effectiveness will be agreed to by all three parties (respective Department, Consultants and SI) during the performance of the Contract.

3.8   Cloud Provisioning &. Deployment and management

General Requirements:

The Bidder shall be responsible for providing 24*7*365 days support for Prasar Bharati Cloud infrastructure for 51 months from the date of issuance of operational acceptance by Prasar Bharati. The maintenance and support will include following activities -

Compliance to the defined international standards and security guidelines such as PCI DSS 3.2 Level 1 certified CSP. ISO 27001 (ISMS), 27017 and 27018 certified for maintaining operations of cloud and ensuring privacy of Prasar Bharati data.

Ensuring Uptime and utilization of the cloud resources as per SLA's defined in this RFP.

Its bidders responsibility, in the event of a disaster at DC site, activation of services from the DR site (or from different physical locations) with RPO <= 15 Minutes and RTO <= 1 Hour. In case of DR Solution having Active-Active arrangement or Multisite site solution then applicable RPO and RTO shall be <= 15 Minutes)

The Bidder shall develop appropriate policy, checklists in line with ISO 27001 & ISO 20000 framework for failover and fall back to the appropriate DR site. DR drills needs to be performed by the Bidder as and when required by Prasar Bharati or every 6 months to check disaster preparedness.

The Bidder shall conduct vulnerability and penetration test (from a third party testing agency which may be CERT-IN empanelled) on the Cloud facility every 6 months and reports should be shared with Prasar Bharati. The Bidder needs to update the system in response to any adverse findings in the report, without any additional cost to Prasar Bharati.

The Bidder shall conduct ISMS audit & PCI-DSS audit. Internal audit every 6 month and Third Party Certification Audit every Year.

Upgrades - Any required version/Software /Hardware upgrades, patch management etc. at the Cloud Site will be supported by the Bidder for the entire contract period at no extra cost to Prasar Bharati.

Bidder is required to provision additional VM's when the utilization exceeds 80%.

On expiration / termination of the contract, Bidder to handover completes data in the desired format to Prasar Bharati which can be easily accessible and retrievable.

Bidder should have manage the Asset Inventory including the license inventory ,monthly report should be generate on the Asset and license inventory and its usage

MIS Reports - Bidder shall submit the reports on a regular basis in a mutually decided format. The Bidder shall workout the formats for the MIS reports and get these approved by the Prasar Bharati after awarded the contract.

3.9   Providing Cloud Services(IaaS/PaaS/SaaS)

Bidder shall be responsible for compute resource as per following:

- Provide the required compute, memory, and storage required, building the redundancy into the architecture (including storage) and load balancing to meet the service levels

- Provide ability to provision virtual machines, and storage dynamically (or on-demand), on a self-service mode or as requested

- Provide ability to provision virtual machines, and storage dynamically in reserved capacity mode on a self-service mode or as requested

- Provide ability to provision virtual machines on basis of lowest bidding price (spot instance) on a self-service mode or as requested

- CSP should provide Managed services for Configuration management of compute instances along with end to end monitoring services.

While the initial sizing & provisioning of the underlying infrastructure may be carried out based on the information provided in the RFP, subsequently, it is expected that the MSI,

based on the growth in the user load (peak and non-peak periods; year-on-year increase), will scale up or scale down the compute, memory, and storage as per the performance requirements of the solution and meet the SLAs using the auto-scaling features provided by the CSP.

In addition to auto-scaling, for any major expected increase in the workloads, carry out the capacity planning in advance to identify & provision, where necessary, the additional capacity to meet the user growth and / or the peak load requirements to support the scalability and performance requirements of the solution

3.10 Patch & Configuration Management

Bidder shall provide managed service for system patch and configuration management. Critical security patches are applied as needed, or when updates or patches are released from OS vendors. Bidder must ensure patch and updates applies in a timely and consistent manner to minimize the impact on business.Centralized patch management control where we can monitor the update and take

3.11 User Administration

Implement Identity and Access Management (IAM) that properly separates users by their identified roles and responsibilities, thereby establishing least privilege and ensuring that users have only the permissions necessary to perform their assigned tasks.

Administration of users, identities and authorizations, properly managing the root account, as well as any Identity and Access Management (IAM) users, groups and roles they associated with the user account

Offer fine-grained access controls including, conditions like time of the day, originating IP address, use of SSL certificates, or authentication with a multi-factor authentication device.

Provide a mechanism to test the effects of access control policies that are attached to users, groups, and roles before committing the policies into production. Support a policy validator to automatically examine non-compliant access control policies.

Implement multi-factor authentication (MFA) for the root account, as well as any privileged Identity and Access Management accounts associated with it.

3.12 User Acceptance Testing

- MSI shall submit a thorough Testing plan for implementation, go-live and upgrades for the Integrated Solution.

- Test plans will be reviewed and approved by Prasar Bharati.

- MSI shall demonstrate the agreed acceptance testing plan prior to acceptance of the solution as well as during project operations phase, in respect of scalability and performance etc. The MSI may propose further detailed Acceptance plan which the city SPV for each city will review. Once the city SPV provides its approval, the Acceptance plan can be finalized.

- In case required, parameters might be revised by Concerned department in mutual agreement with bidder and the revised parameters shall be considered for acceptance criteria.

- A comprehensive system should be set up that would have the capability to log & track the testing results, upload & maintain the test cases and log & track issues/bugs identified.

- Prasar Bharati appointed third party auditor to perform User Acceptance Testing

- MSI to prepare User Acceptance Testing test cases

- UAT to be carried out in the exact same environment/architecture that would be set up for production 4. MSI should fix bugs and issues raised during UAT and get approval on the fixes from Prasar Bharati /auditor before production deployment

- Changes in the application as an outcome of UAT shall not be considered as Change Request.

- The MSI will develop the UAT Test plan and a detailed User acceptance procedure. The same would be reviewed and agreed by the Department. A high-level approach to be followed by the selected SI for the acceptance testing is mentioned below:

- UAT would be applicable once the entire Prasar BharatiOTT Platform is completely ready and all the modules under the Contract are ready and linked.

UAT would involve:

- Development of Test cases and their approval from the Department

- Application functional testing and testing of other Quality-of-Service requirements

For all tests performed by the Department, the selected SI will prepare the test reports and submit them to the Department for approval. Defects identified in any round of UAT by the Department would be communicated to the SI. The SI will do the needful to troubleshoot or resolve the defects and resubmit the application to Department for UAT. This iterative process for UAT will be performed till zero defects are shown by the selected SI for the test cases developed

The selected SI would ensure that errors detected in previous round of tests do not get repeated in successive tests. g. The software application and test environments required to conduct UAT by the Department would be provided by the selected SI along with all the information necessary on-site to complete the UAT. The test environment would be maintained by the selected SI and transferred to the Department at the End of the Contract

Performance and Load Testing: The Performance and Load testing will be executed by the PMC post-UAT acceptance. But the test environment, testing licenses, test script creation and all technical support will have to be provided by SI along with the required testing support. The inputs for this activity will be the design documents approved by the Department. For the performance and load testing, the PMC will be required to stimulate the testing environment using the appropriate tools. Under controlled environment, performance of the system will need to be evaluated to match the SLAs

3.13 Data Migration

The selected MSI is required to migrate all the existing data available with Department in digitized format from its current database to the new system. As part of data migration, the selected MSI would perform the following activities:

Prepare the Data migration plan and submit to Department for approval.

Ensure minimum business downtime at the time of data migration.

On the Department's approval, prepare the requisite migration architecture and then move the data to the new target environment.

Ensure the accuracy and completeness of the migrated data. Department reserves the right to verify the accuracy and completeness of the migrated data on its own or through its nominated agencies.

Ensure migration of all data for the entire state is completed by the time of state-wide roll out.

Following the rollout, it is planned to have the old system as a back-up for a period of 3 months. During this period, it is the responsibility of the MSI to consolidate all the data transactions on both systems while avoiding duplication or transaction loss.

Recommended Data Migration Approach: -
The data existing in the current application databases would need to be migrated to the new database to enable a smooth transition to the new system. The data migration should be carried out as per the data migration policy as defined by the department and all care must be taken to log in each error. Also, adequate measures must be taken move all the digital record from old to new database, as per defined schema and table structure

3.14 Integration and Interoperability[5]

The scope of this project shall be make available various Application Programming Interfaces (APIs) to enable integration with third-party services such as Payment gateways, games, educational series in universities, etc and devices, such as smart TVs, mobile apps, and content recommendation engines.

Payment gateway integration allows users to make secure online payments, manage auto subscription fee payments, and handle billing-related processes. Depending upon the subscription model identified by Prasar Bharti, this payment gateway would enable the users to pay the subscription fees. Managing the subscription and payments made by the user, a secure and robust payment gateway platform needs to be developed.

---

[5] Technical Standards for Interoperability Framework for e-Governance (IFEG) as per Meity should be adhered to

OTT platform should expose APIs to allow developers to build applications that can access and interact with platform features and content.

Detailed specifications of these components are as follows:

3.15 Support and SLA

The Bidder shall be responsible for providing 24*7*365 days support for Cloud infrastructure for the tenure of the contract from the date of issuance of acceptance by customer.

The maintenance will include compliance process to the defined international standards and

security guidelines. Further customer Security policies and procedures if any that needs to be considered and included in the scope of work

The main bidder or cloud service provider shall ensuring Uptime and utilization of the cloud resources as per SLA's defined in this RFP.

The Bidder shall provision monitoring tools for measuring the service levels, application performance and utilization, server performance and utilization, storage performance and utilization and network performance and utilization. The tool shall be capable of providing the exact utilization of servers and shall be able to generate per day, per month and per quarter.

utilization reports based on which the payments will be made to the Bidder.

The Bidder shall provide system monitoring tool for best users to monitor the following:

- o System response
- o Database response
- o Connectivity
- o Live / active user status
- o CDN usage status
- o Any other components

Upgrades - Any required Version/Software /Hardware upgrades, patch management etc. at the

Cloud Site will be supported by the Bidder for the entire contract period at no extra cost to be payable by customer.

On expiration / termination of the contract, Bidder to handover complete data in the desired format to customer which can be easily accessible and retrievable also handhold for transition to customer or new provider.

Bidder shall conduct Mock drills for DR testing or simulation at least in every six months interval.

MIS Reports - Bidder shall submit the reports on a regular basis in a mutually decided format.

The Bidder shall workout the formats for the MIS reports and get these approved by the customer after awarded the contract. The following is only an indicative list of reports that may be submitted to the customer:

- Weekly
- Monthly
- Quarterly
- Annual improvements and suggestions

3.16 Project Timelines and Milestones

The overall project is expected to go live in 52 weeks from the date of signing the contract and the Release 1 in 10 weeks. In case of any delays in hardware procurement, bidder to provide alternative platform on a temporary basis till the actual equipment is delivered. There shall be no additional commercials provided for this temporary hardware.

3.17 Service Level Agreement (SLA)

The purpose of this Service Level Requirements/Agreement (hereinafter referred to as SLA) is to clearly define the levels of service which shall be provided by the Bidder to customer for the duration of this contract period of the Project.

All the payments to the Bidder are linked to the compliance with the SLA metrics specified in this document.

The SLA are proposed to be performance based. For purposes of SLA, the definitions and terms as specified along with the following terms shall have the meanings set forth below:

a. "**Uptime**" shall mean the time period for which the IT Infrastructure Solution along with specified services / components with specified technical and service standards are available for users in all in-scope Applications across the customer application landscape. Uptime, in percentage, of any component (Non-IT and IT) can be calculated as: Uptime = {1- [(System Downtime) / (Total Time – Planned Maintenance Time)]} * 100

b. "**Downtime**" shall mean the time period for which the IT Infrastructure Solution and/or specified services / components with specified technical and service standards are not available to users. This includes Servers, Routers, Firewall, Switches, all servers and any other IT and non-IT infrastructure, their subcomponents etc. at all Project locations etc. The planned maintenance time / scheduled downtime will include activities like software upgrades, patch management, security software installations etc.

c. The selected Bidder will be required to schedule '**planned maintenance time'** with prior approval of customer. This will be planned outside working time. In exceptional circumstances, customer may allow the service provider to plan scheduled downtime in the working hours.

d. "**Incident**" refers to any event / abnormalities in the functioning of the IT Infrastructure solution and services that may lead to disruption in normal operations.

e. "**Resolution Time**" shall mean the time taken (after the incident has been reported at the helpdesk), in resolving (diagnosing, troubleshooting and fixing) or escalating (to the second level) getting the confirmatory details about the same from the bidder and conveying the same to the end user), the services related troubles during the first level escalation.

3.17.1 Severity Levels

- **Severity 1** - Environment is down or major malfunction resulting in an inoperative condition or disrupts critical business functions and requires immediate attention. A significant number of end users (includes public users) are unable to reasonably perform their normal activities as essential functions and critical programs are either not working or are not available.

- **Severity 2** - Loss of performance resulting in users (includes public users) being unable to perform their normal activities as essential functions and critical programs are partially available or severely restricted. Inconvenient workaround or no workaround exists. The environment is usable but severely limited.

- **Severity 3** - Moderate loss of performance resulting in multiple users (includes public users) **impacted** in their normal functions.

3.17.2 Service Level Agreement

Sr no	Parameter	Target	Basis	Penalty
1	Availability of the OTT Management Portal	>=99.95%	Per occurrence	SLA - Availability Downtime per Month Service Credits (%) From (%) To (%) - 100 < 99.95 | 0 to 21. 6 mins |0% of MRC - 99.95 <99.93 | > 21.6 mins to 30.24 mins | 10% of MRC - 99.93 <99.90 | > 30.24 to 43.20 minutes | 20% of MRC < 99.90 | > 43.20 minutes | 25% of MRC
2	Uptime of Cloud Resource supplied	>=99.95%	Per occurrence	SLA - Availability Downtime per Month Service Credits (%)

				From (%) To (%)
				• 100 < 99.95 | 0 to 21. 6 mins |0% of MRC • 99.95 <99.93 | > 21.6 mins to 30.24 mins | 10% of MRC • 99.93 <99.90 | > 30.24 to 43.20 minutes | 20% of MRC • < 99.90 | > 43.20 minutes | 25% of MRC
3	DR drills	At least 2 No's per Annum	Per occurrence. This will be calculated yearly	• No of DR Drills =1 - 1% of the Yearly Payment • No of DR Drills = 0 - 2% of the Yearly Payment
4	Security incidents and Breaches including data theft or loss or corruption	No breaches	Per occurrence	• Severity 1 (as define) - Penalty of Rs 10 Lakh per incident. • Severity 2 (as define) - Penalty of Rs 5 Lakh per incident.

				• Severity 3 (as define) - Penalty of Rs 3 Lakh per incident. • These penalties will not be part of overall SLA penalties cap per month / quarter. • In case of serious breach of security wherein the data is stolen or corrupted, customer reserves the right to terminate the contract.
5	The Service Provider shall submit MIS Usage report as per set matrix and frequency by Customer	Report of the previous Quarter shall be submitted on 5th day of the current quarter	Per occurrence	• ≤ 5 days - No Penalty • ≤ 10 days - 0.5% of QP • ≤ 20 days - 1% of QP • Between 21 – 30 days - 2% of QP

3.17.3 Helpdesk

The Bidder shall provide a fully functional helpdesk with atleast trained manpower fluent in 10 languages viz. English, Hindi, Tamil, Telugu, Kanada, Malayalam, Marathi, Bengali, Punjabi, Gujarati etc. The help desk should be 24X5X365 available for the entire duration of the contract. The Helpdesk is required to solve the user queries and should have mechanism of escalation matrix for unresolved queries. All the queries should be resolved with a TAT of 5 working days and the report of the same should be submitted to Prasar Bharati on Monthly basis.

4 Pre-Qualification Criteria

The Organization / Agency fulfilling the following Pre-Qualification criteria only needs to submit their responses. Only the organizations / agencies fully satisfying the Pre-Qualification criteria shall be considered for further evaluation. The Pre-Qualification criteria shall be as mentioned below:

Sr. No	Criteria	Supporting document
1	A Single Entity / a Consortium of entities is allowed where each entity should be registered as per the relevant Act in India. In case of a Consortium, the prime bidder should be registered in India. The Bidder (Single Entity or Prime Bidder in case of a consortium) should be in existence for atleast 10 years as on date of submission of the bid response. Note: 1. The consortium cannot be more than 3 members (including Prime Bidder) 2. All members of the consortium should be jointly and severally liable for execution of the work. 3. In case the consortium member is a Cloud Service Provider, the same should be empaneled by MeiTY, GoI and should have valid empanelment for atleast one year	a. Copy of Certificate of Incorporation or equivalent, b. A duly notarized / registered Memorandum of Understanding signed between Prime Bidder and all the consortium members c. Certificate of compliance by the Prime bidder and its associated parties as per Annexure10.1 and 10.2 d. Self declaration by the Prime Bidder about the empanelment of the Cloud Service Provider with MeITY *MOU should clearly mention detailed roles and responsibilities of the Prime Bidder and its Consortium members.*

Sr. No	Criteria	Supporting document
	from date of award of the contract. Also, the Cloud Service Provider should not be deleted from the list of Public Cloud Provider, VPC, and GCC of MeiTY empanelment	
2	A Single Entity / the consortium members collectively together or individuallyshould have an experience of successfully commissioning atleast one full scale professional OTT platform and such OTT platform should have been successfully made live for the client. This work order should be in the past five years (i.e 2017 to 2022) This should cover, but not limited to the following scope: 1. Making the content ready for the OTT platform 2. Design, development and commissioning of the OTT platform 3. Hosting of the content in the cloud 4. Managing the content ingestion, transcoding of the content 5. Design and commissioning of the Content Delivery	a. Work orders / completion certificate (wherever available) in the name of the bidder clearly highlighting the work undertaken by the Bidder for developing the OTT platform. The detailed breakup of the work should be clearly mentioned in the work order. b. Work order should clearly state start date of the project and should be signed by the issuing authority.

Sr. No	Criteria	Supporting document
	Network 6. Analytics for the OTT platform	
3.	Average Annual turnover of 200% of estimated cost of the project in the last 03 financial years Or Cumulative Turnover of 600% of estimated cost of the project in the last 03 financial years Or Average Annual Net Worth of minimum of 50% of estimated cost of the project in the last 03 financial years Or Cumulative Net Worth of minimum of 150% of estimated cost of the project in the last 03 financial years Profitable / positive net worth in the last financial year Solvent entity (CA certified documents)	• A certificate (on the letter head) from the practicing Chartered Accountant / Statutory Auditor duly signed & stamped and clearly mentioning the annual turnover details for a Single Entity and all members of the Consortium (in case of consortium) each year in the last three financial years (2020-21, 2021-22,2022-23) • Copy of the audited Profit and Loss Statement for Single Entity and all the members of the consortium including Prime Bidder (in case of consortium) for each of the last three financial years (2020-21, 2021-22,2022-23)
4.	The bidder or in case of a consortium, the all the members, should have positive net worth for last 3 years (2020-21, 2021-22,2022-23)	• A certificate (on the letter head) from the practicing Chartered Accountant / Statutory Auditor duly signed & stamped and clearly mentioning the net worth for a Single Entity and all members of the Consortium (in case of

Sr. No	Criteria	Supporting document
		consortium) each year in the last three financial years (2020-21, 2021-22,2022-23)
5.	The bidder or in case of a consortium, none of the members of the consortium should have been blacklisted by any State Govt. OR Central Govt. department OR organization in India OR abroad as on the last date of bid submission.	• Self-Certification by the single entity, prime bidder, and all members of the consortium on their respective letter head duly signed by the authorized signatory mentioning that the Bidder has not been blacklisted by any State Govt. or Central Govt. department and organization in India or abroad as on date of submission of this bid.

Note: Any document in other than English language should be translated to English language by the Bidder. The whole and sole responsibility of the correctness of the translation shall be with the Bidder only.

5   Evaluation of the organizations / agencies

The evaluation of the Bidders shall be done in 3 stages where the Bidders shall be first evaluatedagainstthePre-Qualificationcriteria.OnlythosebiddersfullysatisfyingthePre-Qualification criteria shall be considered for further Technical and Commercial evaluations.

Only those Bidders who score a **minimum of 75 marks** in theTechnical Evaluation shall be considered for further evaluation. In case only 0 or 1 or 2 bidders score 75 marks or above the minimum qualifying marks will be further lowered to **70 marks.**Prasar Bharati reserves the right to relax/increase the minimum marks required in Technical Evaluation for consideration for further evaluation depending upon the number of qualifying Bidders. The bids shall be evaluated using the Quality Cum Cost Based system (QCBS) selection method as mentioned below:

i. The bidders qualifying the criteria above, shall be selected based on QCBS method where the technical quality of the proposal will be given a weightage of 70%.

ii. Theproposalwiththelowestquotewillbegivenafinancialscoreof100andthe other proposals shall be given a financial score that is inversely proportional to their respective quotes

iii. The commercial proposal shall be allocated weightage of 30%.

iv. The Technical score of bidders shall be derived as under:

$$ST = 100 * Tx / Tm$$

Where:
ST shall mean the Technical Score of the bidder to be evaluated;
Tm shall mean the highest marks obtained among all the bidders;
and Tx shall mean the marks obtained by the bidder to be evaluated

v. The Financial Score of bidder shall be derived as under:

$$SF = 100 * Fm / Fx$$

Where:
SF shall mean the Financial Score of the bidder to be evaluated;
Fm shall mean the lowest evaluated price among all the bidders;
and Fx shall mean the evaluated price of the bidder to be evaluated.

vi. The total score, both technical and financial, shall be obtained by weighing the quality and cost scores and adding them up. On the basis of the combined weighted for quality and cost, the Bidder shall be ranked in terms of the total score obtained.

$$H = 0.7 * ST + 0.3 * SF$$

Where: H shall mean the Total Score of the bidder to be evaluated;

vii. The proposals will be ranked in terms of total points scored.

viii. The Bidder obtaining the highest total combined score in evaluation of quality

and cost will be ranked as H1 followed by the proposals securing lesser marks as H2 H3, …etc. The proposal with the highest total points H1 will be considered for award of contract.

ix. In case of final bid score being equal for more than one (1) bidder, then the ranking of bidders as per the technical score

The evaluation committee ("Evaluation Committee") appointed by CEO, Prasar Bharati will carry out the technical evaluation of proposals based on the prescribed evaluation criteria and points system. Evaluators of Technical Proposals shall have no access to the Financial Proposals until technical evaluation is concluded.

1015965/2023/Platforms/DD Free Dish - PBS
RequestforProposalforOTT platform for Prasar Bharati

6 Technical evaluation criteria

TheTechnicalProposalshallbeevaluatedbasedonthefollowingcriteria–

#	Maincriteria	Subcriteria	Max.Marks	Supporting Document
1	Number of Years in operations. The bidder or in case of the Consortium, the Prime Bidder must be in business for at least 10 years as on the last date of bid submission.	i. Minimum 10 years | 5 marks ii. >10 years and <= 15 years | 7 marks iii. >15 years | 10 marks	10	Copy of Certificate of Incorporation or equivalent and Annexure 10.5
2	**Turnover** The bidder or in case of a consortium, the Prime Bidder should have an average annual turnover of INR XXX Cr. for the last three (3) financial years (2020-21, 2021-22,2022-23)	Average Turnover i. XXX Cr. &<XXX Cr. | 5 Marks ii. XXX Cr. &<=XXX Cr. | 7 Marks iii. >XXX Cr. | 10 Marks Note: This will be decided as per the estimated cost	10	• A certificate (on the letter head) from the practicing Chartered Accountant / Statutory Auditor duly

1015965/2023/Platforms/DD Free Dish - PBS
   RequestforProposalforOTT platform for Prasar Bharati

#	Maincriteria	Subcriteria	Max.Marks	Supporting Document
				signed & stamped and clearly mentioning the annual turnover details for a Single Entity and all members of the Consortium (in case of consortium) each year in the last three financial years (2020-21, 2021-22,2022

1015965/2023/Platforms/DD Free Dish - PBS
RequestforProposalforOTT platform for Prasar Bharati

#	Maincriteria	Subcriteria	Max.Marks	Supporting Document
				-23)
3	Manpower having relevant experience in handling similar projects in the past 5 years (2017 – 2022): 1. Project Manager 2. Solution Architect 3. Data Architect 4. Technology Lead 5. Cloud Architect 6. Content Migration expert 7. Media	i. Project Manager | 5 marks ii. Solution Architect | 2 Marks iii. Cloud Architect | 2 marks iv. Content Migration Expert | 2 marks v. Media Ingestion Expert | 2 mark vi. Graphics / UI / UX developer | 2 mark Note: The proposed resources to the extent possible will not be allowed to be replaced till the Go-Live of the entire OTT platform. In case of any replacements during he entire contract duration, the penalties as per SLA shall be levied. A maximum of 2	15	Details and CV as per format mentioned in Annexure 10.8 and 10.9

#	Maincriteria	Subcriteria	Max.Marks	Supporting Document
	Ingestion expert 8. UI / UX Expert	replacements of above profiles with penalties shall only be allowed.		
	Certifications The Bidder should have the following certifications: 1. ISO 20000 2. ISO 9001 3. ISO27001 4. ISO 27017 5. ISO 27018 6. ISO 22301 7. CMMI 3 or above 8. SOC 3 / 4	i. Any three valid certifications – 1 marks ii. Any 5 valid certifications – 3 marks iii. More than 5 valid certification – 5 marks	5	Copy of the valid certification
4	**Experience** A Single Entity / the consortium members collectively or individually should	• 1 full scale professional OTT platform made go-live - 10 marks • 2 full scale	30	Work orders / completion certificate (wherever available) in

1015965/2023/Platforms/DD Free Dish - PBS
   RequestforProposalforOTT platform for Prasar Bharati

#	Maincriteria	Subcriteria	Max.Marks	Supporting Document
	have an experience of successfully commissioning atleast one full scale professional OTT platform and such OTT platform should have been successfully made live for the client. This work order should be in the past five years (i.e 2017 to 2022) This should cover, but not limited to the following scope: 1. Making the content ready for the OTT platform 2. Design, development and commissioning of the OTT platform 3. Hosting of the content in the cloud 4. Managing the content ingestion, transcoding of the content	professional OTT platform made go-live - 20 marks • More than 2 full scale professional OTT platform made go-live - 30 marks		the name of the bidder clearly highlighting the work undertaken by the Bidder for developing the OTT platform. The detailed breakup of the work should be clearly mentioned in the work order. And Annexure 10.6 and 10.7

1015965/2023/Platforms/DD Free Dish - PBS
RequestforProposalforOTT platform for Prasar Bharati

#	Maincriteria	Subcriteria	Max.Marks	Supporting Document
	5. Design and commissioning of the Content Delivery Network 6. Analytics for the OTT platform			
6	Approach and Methodology with live demonstration	The Bidder's presentation would be evaluated on following criteria. • Understanding of the project scope and requirements – 25% weightage • Capability and Commitment level towards the project including the timelines with supporting examples/ case studies - 25% weightage • Overall solution proposed covering a case study, presentation/ demonstration – Here the bidder is expected to showcase the content strategy, media ingestion, development plan, advertisement plan, work plan, implementation strategy for the OTT	30	Approach and Methodology presentation and Live Demonstration of the sample platform

#	Maincriteria	Subcriteria	Max.Marks	Supporting Document
		platform specified in the RFP and timelines – 25% weightage		
		• Quality Assessment / Quality Checks and adherence to the international standards – 25% weightage		
		Note: The Bidder shall present before the Prasar Bharati evaluation committee showcase a live demonstration of the sample OTT platform developed for Prasar Bharti		

Note:

Thebidderswould need to submit documentsto substantiate theevaluation criteria.The documentationtosubstantiatesimilarprojectsneedtobeeitherworkordersorcompletion certificates or client letters stating satisfactorywork.

The Evaluation Committee constituted by Prasar Bharati shall evaluate the technical bids based on proposal, documents submitted and presentations to arrive at the technical score.

It is to be noted that the decision of the Evaluation Committee in the evaluation of responses to the RFP shall be final. No correspondence with the Evaluation Committee regarding the evaluation process shall be entertained. The Evaluation Committee reserves the right to reject any or all proposals on the basis of any deviations. Concealmentorcontradictionoffactswouldbeheldotherwiseandliable forstrictaction. Any such incidence gives Prasar Bharati complete right to reject the claim of the bidder at any stage, even after the completion of tendering process, without even a formalnotice.

7 Deliverables and Timelines

Total project duration is of 60Months. Out of which 9 months are for Implementation and remaining 51 months for Operation & Maintenance. Detailed breakup is provided in the table below.

T is denoted as the signing of the agreement

S.No.	Release	Phase	Milestone	Timelines
1.	Rel 1 • Media Ingestion Room • MAM • User Management • Payment Gateway • OTT Platform (should be a Minimum Viable Product in this release) • 3 Genres • CMS • CDN	Preparation of the FRS/BRD & HLD document	Submission of the detailed BRD/FRS, HLD document including the scope, dependencies and modules	T + 15 days
2.		Preparation of the use cases	Detailed SRS, Use Cases, LLD, Sprint Plan & Wireframes demonstration to the client	T + 30 Days
3.		First cut of all the proposed modules	A live / beta demonstration of the modules to client	T + 45 days
4.		UAT and Signoffs	Undertake UAT and incorporate the suggestions on the modules	T + 50 days
5.		Go Live(Release 1)	Beta Go-Live of the entire application	T + 60 Days
6.		Incorporating bug fixes post Go-Live	Suggestion and important bug fixes	T + 70Days

1.	Rel 2	Preparation of the BRD/FRS, HLD document	Submission of the detailed BRD/FRS, HLD document including the scope, dependencies and modules	T + 105 days
2.	• Video Transcoding and Editing • Streaming Engine • Exhaustive CMS • Full CDN • APIs	Preparation of the use cases	Detailed SRS, Use Cases, Sprint Plan, LLD& Wireframes demonstration to the client	T + 135 Days
3.	• Analytics	First cut of all the proposed modules	A live / beta demonstration of the modules to client	T + 150 days
4.		UAT and Signoffs	Undertake UAT and incorporate the suggestions on the modules	T + 165 days
5.		Go Live(Release 1)	Beta Go-Live of the entire application	T + 180 Days
6.		Incorporating bug fixes post Go-Live	Suggestions and important bug fixes	T + 190 Days
1.	Rel 3 • Recommendations • Advanced Analytics • Genres as decided by Prasar Bharati	Preparation of the BRD/FRS, HLD document	Submission of the detailed BRD document including the scope, dependencies and modules	T + 195 days
2.		Preparation of the use	Detailed SRS, Use Cases, Sprint Plan, LLD&	T + 225

	• User Management • Fixes & Enhancements	cases	Wireframes demonstration to the client	Days
3.	• Any other as per scope and Prasar Bharti requirements	First cut of all the proposed modules	A live / beta demonstration of the modules to client	T + 240 days
4.		UAT and Signoffs	Undertake UAT and incorporate the suggestions on the modules	T + 255 days
5.		Go Live(Release 1)	Beta Go-Live of the entire application	T + 270 Days
6.		Incorporating bug fixes post Go-Live	Suggestions and important bug fixes	T + 280 Days
7	Quarterly Maintenance	Operation & Support	For 48 months distributed equally	Monthly but payable Quarterly

8   Commercial Bid format

The commercial bid format shall be as mentioned below.

#	Usage based Charge Header (payable monthly in arrears)	Unit of Measurement	Monthly Charges	Estimated Annual Recurring Charges Y1	Estimated Annual Recurring Charges Y2	Estimated Annual Recurring Charges Y3	Estimated Annual Recurring Charges Y4	Estimated Annual Recurring Charges Y5
1	OTT platform (service includes: Hardware, Middleware, Integration, Support, DC hosting,active-active DR, cyber security, content security) : No. of active subscribers	Subscribers		50,00,000	57,50,000	66,12,500	76,04,375	87,45,031
1a		per active subscriber		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
2	No. of Live TV Channels	Channels		50				
2a		per live TV channel		₹ 0				
3	No. of OTT FAST Channels	Channels		30				
3a		per FAST Channel		₹ 0				
4	No. of Customized Apps / platforms Supported (E.g.: Android, iOS, Google / MI / Apple / Samsung / LG / Similar TV OS, etc.) along with registration fee and yearly charges with GST	Platforms		10				
4a		Per platform		₹ 0				
5	Advance analytics : No. of plays in '000 per month	Plays		1,20,000	1,38,000	1,58,700	1,82,505	2,09,881

5a		Per 1000 plays		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
6	Content delivery network (CDN) : TB of data transfer on CDNs per month	Data		7,604	8,745	10,057	11,565	13,300
6a		Per TB		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
7	Content delivery network (CDN) : TB of data storage on CDNs per month	Data		512	589	677	779	895
7a		Per TB		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
8	Ad serving : No. of ads stitched/ served in '000 per month	Advertisements (ads)		1000				
8a		per '000 ads		₹ 0				
9	Digital Rights Management (DRM) : No. of plays in '000 per month	Plays		1,20,000	1,38,000	1,58,700	1,82,505	2,09,881
9a		Per 1000 plays		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
10	Transcoding (No. of Hours in a month)	Hours		66,500	69,825	73,316	76,982	80,831
10 a		Per hour		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
11	Media Asset Management platform (service includes: application licensing, compute hardware, Integration, Support, DC hosting, cyber security, content security) : No. of MAM user accounts	MAM		50	60	70	80	100
11 a		per MAM user account		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
12	Content storage for MAM : TB of storage	Data						

				1,024	1,178	1,354	1,557	1,791
12 a		*Per TB*		*₹ 0*	*₹ 0*	*₹ 0*	*₹ 0*	*₹ 0*
13	Professional services (API integration, customisation Etc.) : man hours per month	Manmonth		1,500	1,200	900	600	600
13 a		*per manmonth*		*₹ 0*	*₹ 0*	*₹ 0*	*₹ 0*	*₹ 0*
14	Content conversion (from tapes to Disk), central migration and consolidation	Data		493	0	0	0	0
14 a		*per TB*		*₹ 0*	*₹ 0*	*₹ 0*	*₹ 0*	*₹ 0*
15	P2P / Internet connectivity at Data Centres to connect to Studios and CDNs (Ingress + Egress) : data transfer in TB per month	1 GBPS P2P		7,604	8,745	10,057	11,565	13,300
15 a		Per TB		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
16	24x7 Help Desk & Premium Support with 8 language support and at least 20 seater	Trained helpdesk resources		20	20	20	20	20
16 a		*per month*		*₹ 0*	*₹ 0*	*₹ 0*	*₹ 0*	*₹ 0*
GRAND TOTAL				₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
Per Subscriber Monthly Cost (Grand Total divided by number of subscribers for that year)				-	-	-	-	-

17	One time cost payable(as per the payment		

terms and condition)		

Note:

1. Rates mentioned shall be exclusive of GST

2. Bidders to ONLY fill in unit rates in Green cells i.e. 1a, 2a, 3a, 4a, 5a, 6a, 7a, 8a, 9a, 10a, 11a, 12a, 13a, 14a, 15a, 16a and 17

3. Per Subscriber Monthly Cost thus arrived shall be used to pay for only active user. Active user per month shall be considered for actual payment

4. For serial number 17, one time cost payable cannot be negative number or 0 and bidder doing so shall be summarily rejected. The bidder is required to provide the breakup of the one time cost, comprising but not limited to below:

    a. Development cost

    b. Operational cost

    c. Other cost, please specify

5. The selected bidder has to match the One Time Cost and Lowest Per Subscriber Monthly rates per year (L1)for Year 1 to year 5 from the qualified bidders

6. The commercial value that shall be considered for evaluation and selection purpose will be calculated as follows:

    a. Final Bid Price for the bidder = One time cost divided by 67,42,381(average subscribers for year 1 to year 5 as per commercial format) **+**average of Per Subscriber Monthly Cost for Year 1 to Year 5

    b. The bidder with Commercial Quote that is less than or higher than 20% of the median of FinalBidPrice of all the bidders,will be disqualified

c. The Medial would be calculated as mentioned below:

   i. The Final Bid Price of all the Bidders shall be arranged in the numerical order.
   ii. If there are odd number of results, the median will be the middle number ofthe numerical order
   iii. If there are even number of results, the median will be the average of thetwo central numbers of the numerical order

Illustrative:

1. If Odd number,say 5 bids are qualified and commercial quotes for these 5 bids are 10,11,12.5, 13.2, 14 then the median value would be 12.5
2. If Even number, say 4 bids are qualified and commercial quotes for these 4 bids are 11,12.5,13.2,14 then the median value would be average of two central number i.e. 12.5 and 13.2 which is 12.85

9 Payment milestones

1. 40% of the One time cost would be payable upon successful completion and Go-Live of Release 1

2. 30% of the One time cost would be payable upon successful completion and Go-Live of Release 2

3. 20% of the One time cost would be payable upon successful completion and Go-Live of Release 3

4. 10% upon successful bug fixing of all the releases and successful Go-Live of the fully functional OTT platform

5. Per Subscriber Monthly Cost shall be applicable from subsequent month of the Go-live of Release 1 and calculated on the last day of every month and payable against the number of active users only.

- **Note:**

   1. All payments will be done as per GFR Rules

   2. The Bidder is required to submit the system generated reports on active users, CDN capacity used etc. and should be self attested by the Single Bidder / Prime Bidder in case of Consortium on their respective letter heads

10 Annexure

10.1 Power of attorney for authorization of a representative for signing of the bid

[Proforma for Letter of Authority for Attending Pre-Bid Meetings' /'Un-priced Bid Opening' / 'Price Bid Opening'/Subsequent 'Negotiations']

Ref: Date:

To,

Prasar Bharati

SUB: Goods__Supply__Service : Name

TENDER NO: Tender__Reference__Number

Dear Sir,

I/We, <_____>hereby authorize the following representative(s) for attending any 'Meetings [Pre-Bid Meeting]', 'Un-priced Bid Opening', 'Price Bid Opening' and for any subsequent 'Negotiations' correspondence / communication against the above Bidding Documents:

Name & Designation   Signature

Phone/Cell:

Fax:

E-mail: ……………………………….. @ ………………………………

Name & Designation   Signature

 Phone/Cell:

Fax:

E-mail: ………………………………….. @ ………………………………

We confirm that we shall be bound by all commitments made by aforementioned authorised representative(s).

Place: [Signature of Authorized Signatory of Bidder]

Date: Name:

Designation:

Seal:

Note: This "Letter of Authority" should be on the "letterhead" of the Firm / Bidder and should be signed by a person competent and having the 'Power of Attorney' to bind the Bidder. Not more than 'two [02] persons per Bidder' are permitted to attend "Techno-commercial / Un-priced" & "Price Bid" Openings. Bidders authorized representative is required to carry a copy of this authority letter while attending the un-priced and priced bid opening, the same shall be submitted to PRASAR BHARATI**.**

10.2 Letter of Authority

[Proforma for Letter of Authority for Attending Pre-Bid Meetings' /'Un-priced Bid Opening' / 'Price Bid Opening'/Subsequent 'Negotiations']

Ref: Date:

To,

Prasar Bharati

SUB: Goods___Supply___Service : Name

TENDER NO: Tender___Reference___Number

Dear Sir,

I/We, <_____>hereby authorize the following representative(s) for attending any 'Meetings [Pre-Bid Meeting]', 'Un- priced Bid Opening', 'Price Bid Opening' and for any subsequent 'Negotiations' correspondence / communication against the above Bidding Documents:

[1]   Name & Designation   Signature

[2]   Phone/Cell:

Fax:

E-mail: ………………………………….. @ ………………………………

[3]   Name & Designation   Signature

[4]   Phone/Cell:

Fax:

E-mail: ………………………………….. @ ………………………………

We confirm that we shall be bound by all commitments made by aforementioned authorised representative(s).

Place: [Signature of Authorized Signatory of Bidder]

Date: Name:

Designation:

Seal:

Note: This "Letter of Authority" should be on the "letterhead" of the Firm / Bidder and should be signed by a person competent and having the 'Power of Attorney' to bind the Bidder. Not more than 'two [02] persons per Bidder' are permitted to attend "Techno-commercial / Un-priced" & "Price Bid" Openings. Bidders authorized representative is required to carry a copy of this authority letter while attending the un-priced and priced bid opening, the same shall   be   submitted   to   PRASAR   BHARATI.

10.3 Bid Submission Form And Agreement

To,

Prasar Bharati

SUB: Goods___Supply___Service : Name

TENDER NO: Tender___Reference__Number

Dear Sir,

After examining / reviewing the Bidding Documents for the tender of"

Including "Specifications & Scope of Work", "General Term Conditions [GTC]" and "Price Bid", etc. the receipt of which is hereby duly acknowledged, we, the undersigned, are pleased to offer to execute the whole part of the job and in conformity with the said Bid Documents, including Addenda / Corrigenda Nos.   .

We confirm that this Bid is valid for a period as specified in BDS from the date of opening of "Techno-Commercial / Un-priced Bid", and it shall remain binding upon us and may be accepted by any time before the expiry of that period and any extension thereof.

If our Bid is accepted, we will provide the "Contract Performance Security / Security Deposit" equal to" <_____> of the Contract Price" or as mentioned in Tender Document for the due performance within "thirty [30] days" of such Award.

Until a final Agreement/Letter of Award is prepared and executed, the tender document (including addenda/ corrigenda) together with the "Notification of Award" shall constitute a binding Agreement between us.

We understand that Bidding Document is not exhaustive and any action and activity not mentioned in Bidding Documents but may be inferred to be included to meet the intend of the Bidding Documents shall be deemed to be mentioned in Bidding Documents unless otherwise specifically excluded and we confirm to perform for fulfilment of Agreement and completeness of the Work in all respects within the time frame and agreed price.

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

Place: [Signature of Authorized Signatory of Bidder]

Date: Name:

                                        Designation:

                                        Seal:

1015965/2023/Platforms/DD Free Dish - PBS
RequestforProposalforOTT platform for Prasar Bharati

10.4 Bank Guarantee format

Bank Guarantee No._____

Ref :

To

PRASAR BHARATI

(India's Public Service Broadcaster)

DIRECTORATE GENERAL: DOORDARSHAN

DOORDARSHAN BHAWAN, COPERNICUS MARG,

NEW DELHI – 110001

Dear Sirs,

Whereas the PRASAR BHARATI(India's Public Service Broadcaster), DIRECTORATE GENERAL: DOORDARSHAN having its head office at DOORDARSHAN BHAWAN, COPERNICUS MARG, NEW DELHI – 110001(hereinafter called the Organization) which expression shall, unless repugnant to the context or meaning thereof, include all its successors, administrators, executors and assignees, has floated a Tender No._____

_ and M/s _____ having Registered/ Head Office at _____ (Hereinafter called the "Bidder" which expression shall, unless repugnant to the context or meaning thereof, mean and include all its successors, administrators executors and assignees) have submitted a quotation Reference No. _____ and Bidder having agree to furnish as a conditions precedent for participation in tender as unconditional and irrevocable bank guarantee of Rupees _____Only) for the due performance of Bidder/'s obligations as contained in the terms of the Notice inviting Tenders (NIT) and other terms and conditions contained in the Tender Documents supplied by the Organization specially the conditions that (a) Bidder shall keep his tender open for a period of day, i.e., from _____ to _____ or any extension thereof, and shall not withdraw or modify it in a manner not acceptable to the

Organization(b) the Bidder will execute the contract, if awarded, and shall furnish performance guarantee in the format prescribed by the Organization within the required time. The Bidder has absolutely and unconditionally accepted these conditions. The Organization and the Bidder have agreed that NIT/tender document is an offer made on the condition that the tender, if submitted would be kept open in its original form without variation or modification in a manner not acceptable to the Organization for a period of _____days, i.e., from _____to _____or any extension thereof and that making of the tender itself shall be regarded as an unconditional and absolute acceptance of the conditions, contained in NIT and the tender documents. They have further agreed that the contract consisting of NIT/Tender documents as the OFFER and submission of the tender as the ACCEPTANCE shall be a separate contract distinct from the contract which will come into existence when the tender is finally accepted by the Organization. The consideration for this separate initial contract preceding the main contract is that the Organization is not agreeable to sell the NIT/tender documents to the Bidder and

to consider the tender to be made except on the condition that the tender shall be kept open for the period indicated above and the Bidder desires to make a tender on this condition after entering into this separate initial contract with the Organization promises to consider the tender on this condition and Bidder agrees to keep this tender open for the required period. These reciprocal promises form the CONSIDERATION for this separate initial contract between the parties.

2.   Therefore,   we _____registered_____(indicate the name of Bank)under the laws of _____ having head/registered office at _____(hereinafter) referred to as the "Bank" which expression shall, unless repugnant to the context or meaning thereof, include all its successors, administrators and executors hereby issue irrevocable and unconditional bank guarantee and undertake to pay immediately on first demand in writing Rupees _____ at any time immediately on such demand without any demur, reservations, recourse,

contest or protest and/ or without any reference to the Bidder and any such demand made by the Organization on the bank shall be conclusive and binding notwithstanding any difference between organization and the Bidder or any dispute pending before any court arbitrator or any other matter whatsoever. We also agree to give that Guarantee herein the Organization in writing. This guarantee shall not be determined/discharged/affected by the liquidation, winding up, dissolution or insolvency of the Bidder and will remain valid, binding and operative against the bank.

3. The bank also undertakes that the Organization at the option shall be entitled to enforce this guarantee, against the Bank as a principal debtor, in the first instance, without proceeding against the Bidder.

4. The bank further agree that as between the bank and the Organization, for purpose of the guarantee, any notice of the breach of the conditions contained in NIT and other terms and conditions contained in the Tender Documents as referred above given to the bank by the Organization shall be conclusive and binding on Bank, without any proof, notwithstanding any other matter or difference or dispute whatsoever. We further agree that this guarantee shall not be affected by any change in our constitution, in the constitution of the Organization or that of the Bidder. We also undertake not to revoke, in any case, this Guarantee during its currency.

5. The bank agrees with the Organization that the Organization shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms of the tender or get extension of the validity period from time to time. We shall not be relieved from our liability by reason of any such variation or extension of the validity period or for any forbearance, act of omission and commission on the part of the Organization or any indulgence shown by the Organization to the said Bidder or by any such matter or thing whatsoever which under the law relating to sureties, would, but for this provision, have the effect of so relieving us.

6.Notwithstanding anything contained herein above our liability under this Guarantee is limited to Rupees (_____only) in aggregate and it shall remain in full force upto and including 45 days after

_____unless extended further (indicate the last date of validity period) from time to time, for such period as may be instructed in writing by M/s _____on whose behalf this guarantee has been given, in which case, it shall remain in full force upto and including 45 days after the expiry of extended period. Any claim under this guarantee must be received by us before the expiry of 45 days from _____or (indicate the last date of validity period) before the expiry of 45 days after the expiry of extended period, if any, if no such claim has been received by us within 45 days after the said date/extended date, the rights of the Organization under this guarantee will cease subject to Para 8. However, if such a claim has been received by us within and upon forty five days after the said date/extended date, all rights of the organization under this guarantee shall be valid and shall not cease until we have satisfied that claim.

7. In case contract is awarded to the Bidder here in after referred to as "Contractor" the validity of this Bank Guarantee will stand automatically extended until the contractor furnished to the Organization a bank guarantee for Rs._____(in figure) (Rupees_____only) (in words) towards performance guarantee for satisfactory performance of the contract. In case of failure to furnish performance bank Guarantee in the format prescribed by this Organization by the required date the claim must be submitted to us within 120 days after the last date of validity period or extended period, if any. If no such claim has been received by us within 120 days after the said date/extended date, rights of the organization under this guarantee will cease. However if such a claim has been received by us within and up to 120 days after the said date/extended date all rights of the Organization under this guarantee will cease. However, if such a claim has been received by us within and upto 120 days after the said date/extended date, all rights of the Organization under this guarantee shall be valid and shall not cease until we have satisfied that claim.

8.The Bank confirms that this guarantee has been issued with the approval of appropriate Exchange Control Authority in _____and any other authority(indicate the name of the country of issue of Guarantee) if required as per the laws of the country of issue of guarantee.

The bank confirms that this guarantee has been issued with observance of the

appropriate Exchange Control rules and Regulations of the country.

In witness whereof the Bank, through its authorised officer, has set its hand & stamp on this _____ day of _____ at _____ of _____ (month & year)

Signature

(Full name in capital letters)

(Designation with bank stamp)

Date...........................

Witness No. 1

Signature ………………………..

Full name and Address (in capital letters)……………………..

…………………………………………………………………..

…………………………………………………………………..

Witness No. 2

Signature ………………………..

Full name and Address (in capital letters)……….…………..

…………………………………………………………………..

………………………………………………………………..

INSTRUCTIONS

(FOR FILLING UP BANK GUARANTEE FOR BID BOND)

1. The bank guarantee should be stamped in accordance with the Stamp Act.

2. The non-judicial stamp paper should be in the name of the issuing bank.

3. Clause7of the bank guarantee is applicable in cases of global tenders where foreign tenders also participate. When tenders are invited from parties within India, clause 7 may be deleted and replaced by clause. "The bank also agrees that courts of the place from where tenders have been invited shall have exclusive jurisdiction".

4. Please indicate the currency in which bank guarantee is being given Rs/-(Rupees) have been mentioned only for illustrations. Therefore, in cases where bank guarantee is being given in a currency other than Rupees' or US Dollars' these terms may be deleted and replaced by relevant currency.

5. The period of forty five (45) days mentioned in clause 6 and one hundred twenty (120) days as given in clause 6should be available after the expiry of the validity period of the tender or any extension thereof.

6. The bank guarantee by Indian bidder will be given from an Indian scheduled commercial bank only. The foreign bidders will give Bank Guarantee from an Indian scheduled commercial bank situated in that country. In case no Indian Bank is situated in bidder's country then Bank Guarantee from a foreign bank acceptable to the Organization will be considered, provided it is confirmed by an Indian scheduled commercial bank and shall be governed by the Indian laws and subject to the jurisdiction of the courts in New Delhi.

10.5 Declaration regarding MSME

(To be submitted in Non-Judicial Stamp Paper value of Rs.100/- and to be uploaded in the Technical Bid.)

DECLARATION (For MSME Units only)

I,<_____>on behalf of M/s.<_____>in the capacity of<_____>(Position) hereby declare that

1.   Our MSE Unit(s)is/are availing benefits extended by MSME , Government of India to Micro and   Small Enterprises (MSEs) for the work of <_____> invited vide Bid Number <_____>

2.   Our MSE Unit(s) has/ have not been awarded any work /supply under MSME benefit during the current financial year.

OR

Our MSE Unit(s) has/have been awarded work   /supply for a   total   value   of Rs.(Rupees<_____>only) under MSME benefits as on date and same work(s)/Supply is/are "In hand (Progress)/Incomplete" during the current financial year. Further, We confirm that the value of)/Supply is/are in hand (awarded under MSME benefits) during the financial year plus estimated cost of this tender has not crossed the "Monetary Limit" mentioned in NSIC certificate.

3.   Our firm is participating in this tender under "MSE unit" or "OPEN BIDDER".

NOTE: Strike out the conditions in (2) & (3) whichever is not applicable. Decision on any discrepancy in this "DECLARATION" shall be at the discretion of Prasar Bharati and shall be final and binding.

SIGNATURE WITH COMPANY SEAL

ATTESTED BY NOTARY PUBLIC

10.6 Details of the bidder / prime bidder

To,

Prasar Bharati

_____

TENDER NO: Tender__Reference__Number

1	Bidder Name:	
2	Number of Years in Operatio n	
3	Address of Registered	
	Office	City: State: PIN/ZIP:
4A	Bidder's address where order/contract is to be placed	
		City:
4B	Address from where Goods/ Services are to be dispatched/ provided along with GST no.	City: District:

	(In case supply of Goods/ Services are from multiple locations, addresses and GST no . *Of all such locations are* *to be provided).* (Indian Bidder only)	State: PIN/ZIP: GST No.:
5	Telephone Number of address where order is to be placed	
		(Country Code) (Area Code) (Telephone Number)
6	E-mail address	
7	Fax Number (if available)	
		(Country Code) (Area Code) (Telephone Number)
8	Website	
9	Name & Designation of Contact Person	
10	ISO Certification, if any {If yes, please furnish details}	

12	Banker's Name	
13	Branch	
14	Branch Code	
15	Bank Account Number	
16	PAN No	
17	Status of Firm	Proprietorship Firm/Partnership firm/Limited/Others If Others Specify: [Enclose relevant certificates / partnership deed/certificate of Registration, as applicable]
18	GST No. (refer sl. no. 4B above)	[Enclose copy of GST Certificate]
19	Whether Micro or Small Enterprise? (Indian Bidder only)	Yes / No (*If Yes, Bidder to submit requisite documents as specified it ITB*
20	Type of Entity (Indian Bidder only)	Corporate/ Non-Corporate (As per CGST/SGST/UTGST Act). (In case of Non-Corporate Entity, bidder will submit documentary evidence for same).
21	Whether Bidder is Startups or not? (Indian Bidder only)	Yes / No

22	Whether Bidder is related to any employee of Prasar Bharati? (If, yes, then the list may also be enclosed as mentioned in Para 2.30.3)	Yes / No

Place: [Signature of Authorized Signatory of Bidder]

Date: Name:

                                          Designation:

 Seal

10.7 Project citation format

Relevantprojects	
General information	
Nameof the project	
Clientforwhichtheprojectwas executed	
Nameandcontactdetailsoftheclient	Name: _____ Designation:_____ _____ Email:_____ Contact: _____
Project details	
Descriptionofthe project	
Scopeofservices	
Technologiesused	
Outcomesoftheproject	
Other details	
Total costofthe project	
Durationoftheproject(no.ofmonths,start date, completion date, current status)	

Note: Pleaseprovidefollowingwitheachproject citation

   a. CopyofWorkOrder**or**

   b. Letterfromtheclienttoindicatethesuccessfulcompletionoftheprojects,ifany

10.8 Proposed work plan

#	Activity	CalendarMonth					
		1	**2**	**3**	**4**	**5**	**6**

1 Indicate all main activities of the assignment, including delivery of reports (e.g.: inception, interim, and final reports), and other benchmarks. Forphased assignments indicate activities, delivery of reports, and benchmarks separately for eachphase.

2 Durationofactivitiesshallbeindicated intheformof abarchart.

10.9 Team composition

10.9.1　　**Qualification of Core Team**

Manpower	Minimum Qualifications
Project Manager	• *Educational Qualification: Masters/Bachelor's degree in a relevant field (e.g., Computer Science, Information Technology or eqv) or Masters in Business Administration(Systems or Eqv).* • *Professional Certification: Project Management Professional (PMP), Prince 2 or equivalent certification is preferred.* • *Overall Experience: 10+ years of project management experience.* • *Relevant Experience: Proven track record of successfully managing IT projects, including scope, budget, and timeline.* • *Tools & Technologies: Proficiency in project management software (e.g., Microsoft Project), collaboration tools, and Agile/Scrum methodologies.*
Solution Architect	• *Educational Qualification: Bachelor's or Master's degree in Computer Science or a related field.* • *Professional Certification: TOGAF or AWS Certified Solutions Architect is a plus.* • *Overall Experience: 10+ years of IT architecture and design experience.* • *Relevant Experience: Extensive experience in designing complex IT solutions.* • *Tools & Technologies: Proficiency in architecture modelling tools, cloud technologies, and enterprise architecture frameworks.*
Data Architect	• *Educational Qualification: Bachelor's or Master's degree in Computer Science, Information Systems, or a related field.* • *Professional Certification: Certified Data Management Professional (CDMP) or equivalent is preferred.* • *Overall Experience: 10+ years of data architecture and database design experience.* • *Relevant Experience: Proven expertise in designing and implementing data solutions.* • *Tools & Technologies: Proficiency in database management systems, data modelling tools, and ETL technologies.*
Tech Lead	• *Educational Qualification: Bachelor's degree in Computer Science or a related field.* • *Professional Certification: Relevant technical certifications (e.g., Microsoft Certified, Cisco Certified) are a plus.* • *Overall Experience: 10+ years of software development*

	experience.
	• *Relevant Experience: Strong leadership skills and experience leading development teams.*
	• *Tools & Technologies: Proficiency in programming languages and development tools relevant to the project.*
Cloud Architect	• *Educational Qualification: Bachelor's or Master's degree in Computer Science or a related field.*
	• *Professional Certification: AWS Certified Solutions Architect or equivalent cloud certification is preferred.*
	• *Overall Experience: 10+ years of IT architecture and cloud computing experience.*
	• *Relevant Experience: Proven track record of designing and implementing cloud solutions.*
	• *Tools & Technologies: Proficiency in cloud platforms (e.g., AWS, Azure, GCP), containerization technologies, and cloud security.*
DevOps Expert	• *Educational Qualification: Bachelor's degree in a relevant field.*
	• *Professional Certification: DevOps-related certifications (e.g., AWS Certified DevOps Engineer) are a plus.*
	• *Overall Experience: 6+ years of experience in DevOps and CI/CD pipelines.*
	• *Relevant Experience: Strong expertise in automating deployment and infrastructure management.*
	• *Tools & Technologies: Proficiency in DevOps tools, container orchestration, and version control systems.*
Product Manager	• *Educational Qualification: Bachelor's degree in a relevant field (e.g., Business, Computer Science).*
	• *Professional Certification: Product management certification (e.g., Certified Scrum Product Owner/Agile SAFe) is preferred.*
	• *Overall Experience: 6+ years of product management experience.*
	• *Relevant Experience: Proven track record of successfully managing IT products or projects.*
	• *Tools & Technologies: Familiarity with product management tools and methodologies, such as Agile and Scrum.*
UI/UX Expert	• *Educational Qualification: Bachelor's degree in Graphic Design, Interaction Design, Human-Computer Interaction, or a related field.*
	• *Professional Certification: UI/UX design certifications (e.g., Nielsen Norman Group UX Certification) are a plus.*
	• *Overall Experience: 6+ years of UI/UX design experience.*
	• *Relevant Experience: Strong portfolio demonstrating user-centered design for web and mobile applications.*
	• *Tools & Technologies: Proficiency in design and prototyping tools (e.g., Adobe Creative Suite, Sketch, Figma) and knowledge of usability testing methodologies.*
	•

10.9.2   Projectteam

NameofStaff with qualification and experience	Area of Expertise	Position Assigned	Task Assigned	Time committedfor the engagement

10.10   Curriculum Vitae Format

<table>
<tr><td rowspan="4">Photo</td><td>Name</td><td colspan="3"></td></tr>
<tr><td>Position:</td><td colspan="3"></td></tr>
<tr><td>DateofBirth</td><td colspan="3"></td></tr>
<tr><td>Education:</td><td>☐</td><td colspan="2"></td></tr>
<tr><td rowspan="3">4.Employment   Record</td><td>From</td><td>To</td><td>Company</td><td>PositionHeld</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>5.BriefProfile</td><td>☐</td><td colspan="3"></td></tr>
</table>

1015965/2023/Platforms/DD Free Dish - PBS
    RequestforProposalforOTT platform for Prasar Bharati

8.CountriesofWork Experience	
9.Languages	☐
10. WorkUndertakenthatBestIllustratesCapabilitytoHandletheTaskAssigned	

NatureofWork: Year:

Location:

Company:

PositionHeld:

Mainfeatures:

☐

ActivitiesPerformed:

☐

Certification

I,certifythattothebestofmyknowledgeandbelief,thisCVcorrectlydescribes myself, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

*Date*_____

_____

Signatureofstaffmember   *Day/ Month /Year*

10.11 Checklist

Tender no.	Tender___Reference___Number	
Specification no	XXXXXXXXXXXXXX	
Specification for	Goods__Supply__Service : Name	
(COMMERCIAL)		
Group A		
Name of Bidder and Address		
GSTIN of Firm		

S.No		Description	YES / NO / NOT APPLICABLE	Remarks
1.1		Whether requisite tender Processing fee has been paid?		
2.1		Whether NEFT/RTGS/FDR/DD Bank Guarantee for the requisite earnest money/Bid Bond enclosed with the offer?		
2.2		If so, furnish the following		
	I	Name of the Bank		
	II	Value		
	III	Number		
	IV	Date of issue		
	V	Period of validity of the DD/FDR/ Bank Guarantee (it should not be		

		for less than 165 days(90 days in case of DD) from the date of opening of Technical Bid)		
3		Have the rates, prices and totals etc. been checked thoroughly before signing the tender?		
4		Has a statement incorporating the Nil-deviation from the commercial terms and conditions of this Organization has been prepared and enclosed with the offer?		
5		Whether charges for training of this Organisation's officials included in the prices? If not, whether these have been quoted separately?		
6		Whether firm FOR Destination prices have been quoted?		
8		Whether the cost of installation/erection/commissioning at site is included in the prices or not and whether it has been quoted separately?		
9		Whether the period of validity of the offer is as required in the tender document. If not, mention the extent of variation in days.		
10		Whether the offer has been signed indicating full name?		
11		Are the pages of the tender consecutively numbered and an indication given on the front page of the tender as to how many pages are contained in the tender?		
12		Has the tender been prepared in sufficient details/clarity so as to avoid post tender clarifications/amendments?		
13		Whether required sample asked in tender has been submitted along with the offer		

14	Whether all Clauses of the tender are accepted?		
15	If not, the clauses not accepted may please be indicated		
16	Whether guarantee/warranty has been furnished?		
17	Whether Commercial bid and technical bid of the tender document duly filled in and submitted.		
18	Whether each Page of Appendix- A, B, C, D, E, F and G of the tender document is signed and submitted with the offer.		
19	Whether Integrity Pact duly signed is submitted, if estimated cost of the bid is more than 2 Crore.		
	Group B		
1	Whether a copy of the latest income tax return has been enclosed?		
2	Whether details of your registration under GST have been indicated in the offer?		
	Group C		
	(Technical)		
1	Whether necessary literature/catalog of the full complement of equipment offered as well as operation service and maintenance manual thereof has been		

	attached with the offer?		
2	Whether the material being offered fully conforms to all the required technical specifications (Appendix-D)?		
3	If not, has the extent of deviation and how it is suitable to this Organisation's requirement been specified.		
5	Whether the model of each equipment offered are the latest?		
6	Whether the spares support will be available for a period of 5 years from the date of supply?		
7	Do you have an after-sales service centre in India?		
	If no, which is the nearest service centre (Address).		
8	Whether complete details of after-sales service arrangements given including training for the officials of this organization?		

10.12   Nil Deviation Certificate

(Technical Bid)

Subject: Notice Inviting Tender for Goods__Supply___Service : Name

NIT Enquiry No: NIT-08/2023-24   Dated 01/06/2023

Tender no. Tender__Reference__Number

NIL DEVIATION CERTIFICATE

Notwithstanding anything mentioned in our bid, we hereby accept all the terms and conditions of this Tender Document without any reservations whatsoever. We hereby undertake and confirm that we have understood all the specifications, stipulations, terms and conditions as mentioned in this Tender enquiry.

I hereby declare that – There is no deviation in the offer.

Signature of Authorized Signatory of Bidder

Name:

Designation:

Date:

Place:

Seal   of   Organization:

10.13   Declaration Regarding Holiday/Banning And Liquidation, Court Receivership

To,

Prasar Bharati

SUB: Goods__Supply__Service : Name

TENDER NO: Tender__Reference__Number

Dear Sir,

We hereby confirm that we are not on 'Holiday' by any offices of Prasar Bharati/ AIR/ DD/ CCW/ Government or Public Sector (due to "poor performance" or "corrupt and fraudulent practices") or banned by Government department/ Public Sector on due date of submission of bid.

Further, we confirm that neither we nor our allied agency/(ies) (as defined in the Procedure for Action in case of Corrupt/ Fraudulent/ Collusive/ Coercive Practices) are on banning list of Government or Public Sector.

We also confirm that we are not under any liquidation, court receivership or similar proceedings or 'bankruptcy'.

In case it comes to the notice of Prasar Bharati that the bidder has given wrong declaration in this regard, the same shall be dealt as 'fraudulent practices' and action shall be initiated as per the Procedure for action in case of Corrupt/Fraudulent/Collusive/Coercive Practices.

Further, we also confirm that in case there is any change in status of the declaration prior to award of contract, the same will be promptly informed to Prasar Bharati by us.

Place: [Signature of Authorized Signatory of Bidder]

Date: Name:

 Designation:

 Seal:

10.14   E-Banking Mandate Form

(To be issued on Bidder letter head)

1.   Bidder/customer Name:

2.   Bidder /customer Address:

3.   Bidders' e-mail id:

4.   Particulars of bank account

a)   Name of Bank

b)   Name of branch

c)   Branch code:

d)   Address:

e)   Telephone number:

f)   Type of account (current/saving etc.)

g)   Account Number:

h)   IFSC of the bank branch

i)   9 digit MICR code

I/We hereby authorize Prasar Bharati to release any amount due to me/us in the bank account as mentioned above. I/We hereby declare that the particulars given above are correct and complete. If the transaction is delayed or lost because of incomplete or incorrect information, we would not hold Prasar Bharati responsible.

(Signature of Bidder/)

10.15   Self-Certificate for Local Content

*We [name of manufacturer] hereby confirm in respect of quoted item(s) that Local Content is equal to or more than 50% and come under 'Class-I Local Supplier' Category. As being 'Class-I Local Supplier', we are eligible for Purchase Preference under 'Make in India' Policy vide GoI Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019, 04.06.2020 and 16.09.2020, or latest order, if any, will be applicable).

OR

*We [name of manufacturer] hereby confirm in respect of quoted item(s) that Local Content is more than 20% but less than 50% and come under 'Class-II Local Supplier' Category.

The details of the location(s) at which the local value addition made is/are as under:

1……………………………………………………………………

2…………………………………………………………………….

3…………………………………………………………………….

* Strike out whichever is not applicable

Date: Seal & Signature of the Bidder

10.16   Integrity Pact

[To be executed on plain paper and submitted along with bid/tender document for Bidders having a value of Rupees two crores or more.]

To be signed by the Authorized Signatories of the Bidders and Prasar Bharati

This pre-bid pre-contract Agreement, hereinafter called the INTEGRITY PACT, is made on thisday of the month of   , 20   . BETWEENCEO Prasar Bharati (Broadcasting Corporation of India), Prasar Bharati House, Copernicus Marg, New Delhi 110001 acting through Deputy Director General (Purchase) >Address: <DG: DD> hereinafter called the "Buyer", which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns, on the one hand,

AND

M/s< >, at address<_____ >acting   through Sh.<_____>

    , Chief Executive Officer, hereinafter called the "BIDDER", which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns, on the other.

PREAMBLE

WHEREAS the BUYER proposes to procure (Supply, Installation, Testing and Commissioning of   <_____>),   hereinafter   referred   as   "<SITC   of _____>" and has floated a tender [Tender No.<_____>], hereinafter referred to as the "TENDER", and the BIDDER/ SELLER is willing to offer/ has offered the <(Name of the Work/Supply:><_____> and the BUYER intends to award a contract / purchase order / work order for the <SITC of_____> covered under the TENDER hereinafter referred to the "CONTRACT",

AND WHEREAS the BIDDER/ SELLER is a company incorporated in India under Companies Act, 1956/2013 or a Partnership registered under Indian Partnership Act, 1932 or a Limited Liability Partnership (LLP) in India or Government undertaking or a Government Autonomous body and the BUYER is an Autonomous Organisation of the Government of India performing its functions on behalf of the President of India.

AND WHEREAS the BUYER has appointed Independent External Monitors (IEMs) to monitor

The TENDER process and the execution of the CONTRACT for compliance with the principles as laid down in this INTEGRITYPACT.

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this INTEGRITY PACT, the terms and conditions of which shall also be read as integral part of the TENDER document and CONTRACT between the parties.

NOW, THEREFORE,

To avoid all forms of corruption by following a system i.e. fair, transparent and free from any influence / prejudiced dealing prior to, during and subsequent to the currency of the CONTRACT to be entered into with a view to:-

Enable the BUYER to obtain the <SITC of _____ > at a competitive price in conformity with the defined specifications by avoiding the high cost and distortion any impact of corruption on public procurement,

And

Enable the BIDDER/ SELLER to abstain from bribing or indulging in any corrupt practices in order to secure the CONTRACT by providing assurance to the BUYER that their competitors will also abstain from bribing and other corrupt practices,

And

Enable the BUYER to prevent corruption in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this INTEGRITY PACT and agree as follows:

1.   Article 1 – COMMITMENTS OF THE BUYER

1.1   The BUYER undertakes that no official of BUYER, connected directly or indirectly with the CONTRACT/ TENDER or the BUYER personally or any of his family members will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favor or any material or immaterial benefit or any other advantage from the BIDDER/ SELLER, either for themselves or for any person, organization or third party related to the CONTRACT in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the CONTRACT.

1.2   BUYER will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER/ SELLER, which could afford an advantage to that particular BIDDER in comparison to the other BIDDERS.

1.3   The officials of the BUYER will report to the Independent External Monitor (IEM) with a copy to the Chief Vigilance Officer (CVO) any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

1.4   In case any such misconduct on the part of such official(s) of the BUYER is reported by the BIDDER to the BUYER with the full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the CONTRACT process. In such a case, while an enquiry is being conducted by the BUYER, the proceedings under the CONTRACT would not be stalled, unless considered necessary.

2   Article 2 - COMMITMENTS OF THE BIDDER

2.1   The BIDDER commits himself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of the bidding or during any pre-contract or post-contract stage in order to secure the CONTRACT or in furtherance to secure it and in particular commits himself to the following:-

2.1.1 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official or family member of the BUYER, connected directly or indirectly with the Biding Process, or to any person, organization or third

party related to the CONTRACT in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

2.1.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage, or inducement to any official of the BUYER or family member of the BUYER or otherwise in procuring the CONTRACT or forbearing to do or having done any act in relation to the obtaining or execution of the CONTRACT or any other CONTRACT with the Prasar Bharati for showing or forbearing to show favor or disfavor to any person in relation to the CONTRACT or any other CONTRACT with Prasar Bharati.

2.1.3 BIDDER shall disclose the name and address of his agents and representatives and the Indian BIDDERS shall disclose his foreign principals or associates, if any.

2.1.4 BIDDER shall disclose the payments to be made by them to agents/ brokers or any other intermediaries, in connection with this TENDER/CONTRACT.

2.1.5 The BIDDER further confirms and declares to the BUYER that the BIDDER is the original manufacturer/ authorised partner of the <SITC of _____> and has not engaged any individual or firm or company whether Indian or foreign other than those Para 2.1.3 and Para 2.1.4 above, to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of the CONTRACT to the BIDDER.

2.1.6 The BIDDER will not collude with other parties interested in the CONTRACT to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the CONTRACT.

2.1.7 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

2.1.8 The BIDDER shall not use impropriety, for purpose of competition or personal gain, or pass on to others, any information provided by BUYER as part of the business relationship, regarding plans, technical proposal and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.

2.1.9   The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

2.1.10 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above in the sub clause of this Article2.

2.1.11 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an official of the BUYER has financial interest/stake in the BIDDER"s firm, the same shall be disclosed by the BIDDER at the time of filling of tender.

2.1.12 The term, relative "for this purpose would be as defined in Section 2(77) of the Companies Act, 2013.

2.1.13 The BIDDER shall not lend or borrow any money or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER.

3   Article 3 - PREVIOUS TRANSGRESSION, IF ANY, OF THE BIDDER

3.1   The BIDDER declares that no previous transgression has occurred in the last three years immediately before signing of this INTEGRITY PACT with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER"s exclusion from the TENDER process.

3.2   The BIDDER agrees that if it makes incorrect statement on this subject, he can be disqualified from the TENDER process or the CONTRACT, if already awarded, can be terminated for such reason.

3.3   If the BIDDER can prove that he has resorted/ recouped the damage caused by him and has installed suitable corruption prevention system, the BUYER may, at his own discretion, as per laid down organisational procedures, revoke the exclusion prematurely.

4   Article 4 - SANCTIONS FOR VIOLATIONS

4.1   Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the following actions, wherever required:-

4.1.1 To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(S) would continue.

4.1.2 The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/ Performance Bond (after the CONTRACT is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason there for.

4.1.3 To immediately cancel the CONTRACT, if already signed, without giving any compensation to the BIDDER.

4.1.4 To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with Interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other CONTRACT for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

4.1.5 To encash the advance bank guarantee and performance bond/ warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.

4.1.6 To cancel all or any other contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/ rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

4.1.7 Registration of suppliers and their eligibility to participate in Procurement Entity's procurements is subject to compliance with Code of Integrity for Public Procurement and good performance in contracts.

i.   A bidder shall be debarred if he has been convicted of an offence.

a.   Under the prevention of Corruption Act. 1988: or

b.   Under the Indian Penal Code or any other law for the time being in force, for causing a threat to public health as part of execution of a public procurement contract.

ii.   A bidder debarred under sub-section (i) or any successor of the bidder shall not be eligible to participate in a procurement process of any procuring entity of Prasar Bharati for a period not exceeding three years commencing from the date of debarment.

iii.   Buyer may debar a bidder or any of its successor, from participating in any procurement process undertaken by it, or period not exceeding two years, if it determines that the bidder has breached the code of integrity.

iv.   Prasar Bharati will maintain such list of debarred suppliers which will also be displayed on its website.

v.   The bidder shall not be debarred unless such bidder has been given a reasonable opportunity to represent against such debarment.

4.1.8   To recover all sums paid in violation of this INTEGRITY PACT by the BIDDER to any middlemen or agent or broker with a view to securing the CONTRACT.

4.1.9   In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.

4.1.10 The BUYER will be entitled to take all or any of the actions mentioned at Paras 4.1.1to4.1.9 of this INTEGRITY PACT also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

4.1.11 The decision of BUYER to the effect that a breach of the provisions of this INTEGRITY PACT has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the IEM(s) appointed for the purposes of this INTEGRITY PACT

5   Article 5 - INDEPENDENT MONITORS

5.1   THE BUYER has appointed an Independent External Monitor (hereinafter referred to as "MONITOR") for this INTEGRITY PACT in consultation with the Central Vigilance Commission (Addresses and Contact details of the Monitor is:

Smt. Meenakshi Mishra, IA &AS (Retd).

198/1, Neb Valley, Neb Sarai,

IGNOU Road, New Delhi-110068

Mob: 9869039055, 9869439055

Phone: 011-29533457

E-mail: pcmishra@hotmail.com.

5.2   The task of the MONITOR shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact.

5.3   The MONITOR shall not be subject to instructions by the representatives of the parties and shall perform his functions neutrally and independently. He will report his findings to Chief Executive Officer, Prasar Bharati (CEO,PB).

5.4   Both the Parties accept that the MONITOR has the right to access, without restriction, all the documents relating to the Project/ procurement, including minutes of meetings.

5.5   The BIDDER accepts that the MONITOR has the right to access, without restriction, all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will also grant the MONITOR, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his Project documentation. The same is applicable to Subcontractors of the BIDDER. The MONITOR shall be under contractual obligation to treat the information and documents of the BIDDER and his Subcontractor(s) with confidentiality.

5.6   The BUYER will provide to the MONITOR sufficient information about all meetings among the parties related to the Project/ procurement provided such meetings could have an impact on the contractual relations between the Parties. The Parties will offer to the MONITOR the option to participate in such meetings.

5.7   As soon as the MONITOR notices, or believe to notice, a violation of this INTEGRITY PACT, he will so inform the Authority designated by the BUYER with a copy to CVO, PB and request them to discontinue or take corrective action, or to take other relevant action. He will also inform separately to CEO, PB with copy to CVO, PB. The MONITOR can in this regard submit non-binding recommendations. Beyond this, the MONITOR has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

5.8   The MONITOR will submit a written report to the CVO, PB within 4 to 8 weeks from the date of reference or intimation to him by the BUYER or BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

5.9   If the MONITOR has reported to the CEO, PB and CVO, PB a substantial suspicion of an offence under the relevant IPC/PC Act and they have not, within reasonable time taken visible action to proceed against such offence, the MONITOR may also transmit the information directly to the Central Vigilance Commissioner

6   Article 6 - FACILITATION OF INVESTIGATION

In case of any allegation of violation of any provisions of this INTEGRITY PACT or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

7   Article 7 - LAW AND PLACE OF JURISDICTION

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

8   Article 8 - OTHER LEGAL PROVISIONS/ ACTIONS

8.1   The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extent law in force relating to any civil or criminal proceedings.

8.2   Any dispute or difference arising between the parties with regard to the terms of this INTEGRITY PACT and / or, any action taken by the BUYER in accordance with this INTEGRITY PACT or interpretation thereof shall not be subject to arbitration.

8.3   Both the parties agree that this INTEGRITY PACT has precedence over the TENDER/ CONTRACT documents with regard to any of the provisions covered under this INTEGRITYPACT.

9   Article 9 – VALIDITY

9.1   The validity of this INTEGRITY PACT shall be w.e.f. the date of its signing and shall extend up to 5(five) years or during the complete execution of the CONTRACT to the

satisfaction of both the BUYER and the BIDDER, including warranty period, whichever is later. For unsuccessful BIDDERs at the tendering / pre-contract stage, this INTEGRITY PACT shall expire after six (06) months from the date of signing of the CONTRACT.

9.2   Should one or several provisions of this INTEGRITY PACT turn out to be invalid; the remainder of this Integrity Pact shall remain valid. In this case, the Parties will strive to come to an agreement to their original intentions.

9.3   If any claim is made/ lodged during the validity period of the INTEGRITY PACT, the same shall be binding and continue to be valid despite the lapse of INTEGRITY PACT as specified above.

9.4   The parties hereby sign this INTEGRITY PACT at   on

—————————— .

(For & On behalf of the Prasar Bharati)   (For & On behalf of BIDDER)

(Office Seal)   (Office Seal)

Place:……………………

Date:……………………….

Witness 1:

(Name & Address)

Witness 2:

(Name   &   Address)

(Name   &   Address)

10.17   Bidder's Queries For Pre Bid Meeting

SUB: Goods__Supply__Service : Name

TENDER NO: Tender__Reference_Number

SL. NO.	REFERENCE OF BIDDING DOCUMENT				BIDDER'S QUERY	For the Use of Office.
	SEC. NO.	Page No.	Clause No.	Subject		

NOTE: The Pre-Bid Queries may be sent by e-mail before due date for receipt of Bidder's queries.

The Address / Email / to Send Email Queries: Assistant Director (E) Room No.403 DIRECTORATE GENERAL: DOORDARSHAN DOORDARSHAN BHAWAN, COPERNICUS MARG, NEW DELHI- 110001 (INDIA) TELEPHONE 011-23114278

E-Mail: ddpurchase401@yahoo.co.in

SIGNATURE OF BIDDER:

NAME OF BIDDER :

10.18   Proforma For Bank Guarantee For Performance Security

(To be stamped in Accordance with Indian stamp Act)

The Non-judicial stamp paper should be in the name of issuing Bank

Ref …………………………..Bank Guarantee No. ………………………………………….

To

PRASAR BHARATI

(India's Public Service Broadcaster),

DG: DOORDARSHAN, DOORDARSHAN BHAWAN,

Copernicus Marg, NEW DELHI

Dear Sirs,

1   In consideration of PRASAR BHARATI ((India's Public Service Broadcaster), DG:DOORDARSHAN having its head office at India (herewith referred to as the Organisation which expression shall, unless repugnant to the context or meaning thereof, include all its successors, administrators, executors and assignees and having entered into a contract dated (hereinafter called "the contract" which expression shall include all the amendments thereto)   on   behalf   of   the   PRASAR   BHARATI   with M/s_____ having its Head/ Registered office at _____ (hereinafter referred to the contractor which expression unless repugnant to the context having been executors and assigns) and the contract having been unequivocally been accepted by the contractor resulting in a contract bearing No._____ dated_____ valued at Rs._____ (Rupees_____) (in words) for having agreed that the contractor shall furnish to the organisation Performance Guarantee for the faithful performance of the entire contract to the extent of 5% of the of the value of the contract Rupees_____ (in words). We_____ (Name of the Bank) having its registered unless repugnant to the context or meaning thereof, include all its successors, administrators, executors and assignees do hereby guarantee and undertake to pay immediately on first demand in writing, in Rupees as acceptable to the Organisation any and all moneys the extent of Rupees_____(In

words). In aggregate at any time without any demur, reservations, recourse, contest or protests and /or without any reference to the contractor. Any such demands made by the Organisation on the Bank shall be conclusive and binding notwithstanding any difference between the Organisation and contractor or any dispute pending before any court Arbitrator or any other authority. We agree that guarantee herein contained shall be irrevocable and shall continue to be enforceable till it is discharged by the Organisation in writing.

2   The Organisation shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from time to time to extend the time for performance of the contract by the contractor or vary the terms of the contract. The Organisation shall have the fullest liberty without affecting this guarantee to postpone from time to time the exercise of power vested in them or of any right which they might at anytime in any manner, and either to enforce, or to forebear to enforce, any covenants contained or implied in the contract between the Organisation and the contractor or any other course or remedy or security available to the Organisation. The Bank shall not be released of its obligations under these presents by any exercise by the Organisation of its liberty with reference to matter aforesaid or any of them or by reason of any other act of forbearance or other acts of omission or commission on the part of the Organisation or any other indulgence shown by the Organisation or by any other matter or thing whatsoever, which under law would, but for this provision, have the effect of relieving the Bank.

3   The Bank also agrees that the Organisation at its option, shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance, without proceeding against the contractor and notwithstanding any security or other guarantee that the Organisation may have in relation to the contractors liabilities.

4   The Bank further agrees that the Guarantee herein contained shall remain in full force during the period that is taken for the performance of the contract i.e. complete delivery of the material/equipment as the same is a condition of supply contract and all the dues of the Organisation under or by virtue of this contract, have been fully paid and its claim satisfied or discharged or till the Organisation discharge this guarantee in writing.

5   We further agree that as between us and the Organisation for the purpose of this guarantee any notice given to us by the Organisation that the money is payable by the contractor and any amount claimed in such notice by the Organisation shall be conclusive and binding on us notwithstanding any difference between the Organisation and the contractor or any dispute pending before any court, Tribunal, Arbitrator or any other authority. We further agree that this Guarantee shall not be affected/discharged by any change in our constitution, in the constitutions of the Organisation that of the contractor. We also undertake not to revoke this guarantee during its currency. This guarantee shall not be determined discharged or affected by the liquidation, winding up, dissolution or insolvency of the contractor and shall remain valid, binding and operative against the Bank.

6.   Notwithstanding anything contained herein above, our liability under this guarantee is limited to Rs._____(In figure)(Rupees_____) (In words) in aggregate and it shall remain in full force up to and including 60 days after (Indicate the date of expiry of Guarantee/Warranty period) unless extended further, from time to time, for such period as may be instructed in writing by M/s_____ on whose behalf this guarantee has been given, in which case it shall remain in full force up to the expiry of the extended period. Any claim under this guarantee must be received by us before the expiry of one year from_____(indicate the date of expiry of Guarantee/warranty period) or before the expiry of one year after the expiry of extended period, if any. If no such claim has been received by us within one year after the said date/extended date, the right of the Organisation under this guarantee will cease, However, if such a claim has been received by us within and up to one year after the said date/extended date, all the rights of the Organisation under this Guarantee shall be valid and shall not cease until we have satisfied that claim.

7.   The bank confirms that this guarantee has been issued with the approval of the appropriate Exchange Control, Rules and regulations of the country.

We also agree that this guarantee shall be governed and construed in accordance with Indian Laws and subject to the exclusive jurisdiction of Indian courts.

     The bank also agrees that Courts of New Delhi, India shall have exclusive jurisdiction.

     Dated this…………………………day of ……………………………………..

     At ……………………………………………

(SIGNATURE)

(Full name and address in of official capital letter)

(Designation with Bank Stamp)

Date

Witness No. 1

Signature ………………………..

Full name and Address (in capital letters)……………………..

………………………………………………………………………

Witness No. 2

Signature ………………………..

Full name and Address (in capital letters)……………………..

…………………………………………………………………..

*   Applicable where the party is foreign one.

**   Applicable where the party is Indian.

INSTRUCTIONS

(FOR FILLING UP BANK GUARANTEE FOR PERFORMANCE BOND)

I.   The Bank guarantee should be stamped in accordance with the stamp act.

II.   The non-judicial stamp paper should be in the name of the issuing bank.

        The bank also agrees that the Court of New Delhi India shall have exclusive jurisdiction.

a.   The period one year mentioned in clause 6 should be available after the expiry of the validity period/satisfactory performance, as the case may be, or any extension of such period.

b.   The Bank Guarantee by bidders will be given from any Scheduled Commercial Bank in India.

c.   In the case of guarantee by a foreign bank, the same should be got confirmed by an Indian Commercial bank.

10.19   Commercial Proposal Format

Date: ,

XXXXXXXX

New Delhi – 110001

Subject:SubmissionoftheCommercialbidforDigital   Platform at   Prasar
Bharati

Dear Sir,

We, the undersigned, offer to provide the services for <<Title of Implementation Services>> in accordance with your Request for Proposal dated <<Date>> and our Proposal (Technical and Commercial Proposals). Our   attached   Commercial   Proposal   is   forthesumof<<Rs .... ,Amountinwordsandfigures>>.Thisamountisinclusi veof

theall taxes.

a. PRICEANDVALIDITY

All the prices mentioned in our bid response are in accordance with the terms as specified in the RFP documents. We hereby confirm that our prices include all taxes.Weunderstandthat theactual payment would be made as per the existing indirect tax rates during the time of payment.

b. UNITRATES

Wehaveindicated   inthe   relevantformsenclosed,the   unit   ratesand totalamount for the purpose of account of payment as well as for price adjustment in case of any increase to / decrease from the scope of work under the contract.

c. COMPLIANCE

We   declare   that   all   theservices   shall   be   performed   strictly   in

accordance with the biddocuments, all of whichhave been detailedout exhaustively in the followinginourbid.WeacceptPrasar Bharaticandeleteanylineitemofthecommercialproposal.

Further we agree that additional conditions, if any, found in the bid documents, other than those stated in deviation schedule, shall not be given effect to.

d. TENDERPRICING

We further confirm that the prices stated in our bid are in accordance with your Scope of Work included in RFP documents

e. QUALIFYINGDATA

We confirm having submitted the information as required by you in your bid document.Incaseyourequireanyotherfurtherinformation/documentarypr oofin thisregardbeforeevaluationofourbidresponse,weagreetofurnishthesame in time to your satisfaction

f. BIDPRICE

WedeclarethatourBidPrice isfortheentirescopeoftheworkasspecifiedin the

<ReferSection No.>.Thesepricesareindicatedin CommercialBid attached with our Tender as part of the Tender.

g. PERFORMANCEBANKGUARANTEE

Weherebydeclarethat in casethecontractisawarded tous, weshallsubmitthe Performance Bank Guarantee (as per Annexure 11.8) of the RFP document #.

OurCommercialProposalshallbebindinguponussubjecttothemodificationsresulti ng from Contract negotiations, up to expiration of the contract period.

Weherebydeclarethatourbidresponseismadeingoodfaith,withoutcollusionorfrau d and the information contained in the bid response is true and correct to the best of our knowledge and belief.

We understand that our bid response is binding on us and that you are not bound to accept bids you receive.

Thankingyou,   Yourssincerely,

                                                          AuthorizedSignature:

                                                          NameandTitleofSi

                                        gnatory: Name of Firm:＿＿＿＿＿Address:＿＿

10.20 Solution details

S. No	Proposed Solution (Provide the Product Name or fill Custom Built,incaseofanew development)	Version & Year of Release	OEM	Features & Functionalities	O&M Support (Warranty/ATS/ :asrequiredas per RFP)	Reference in the Submitted Proposal (Pleaseprovidepage number/section number/ volume)

Bill of Material

S. No	Item	Proposed Solution (Provide the Product Name or fill CustomBuilt, in case	Unit of Measurement	Number of Licenses (Development Environment)	Number of Licenses (UAT)	Number of Licenses (Training)	Number of Licenses (Data Center Production)	Number of Licenses (DRSite)

		of a new development t)						Page	181 of 269

10.21   Service Level Agreement

- This section describes the service levels to be established for the Services offered by the MSI to Prasar Bharati. The successful MSI has to comply with below-mentioned SLAs to ensure adherence to quality, security, and availability of service. The MSI should provide adequate tools required to capture the data for SLA verification and will submit the SLA reports on the quarterly basis to Prasar Bharati. Definitions

- "Scheduled Maintenance Time" shall mean the time that the System is not in service due to a scheduled activity as defined in this SLA. The scheduled maintenance time would not be during 24x7 timeframe. Further, scheduled maintenance time is planned downtime with prior permission of Prasar Bharati.

- "Scheduled operation time" means the scheduled operating hours of the System for the month. All scheduled maintenance time on the system would be deducted from the total operation time for the month to give the scheduled operation time. The total operation time for the systems and applications within the on-cloud data center and on cloud disaster recovery center will be 24x7x365.

- "System or Application downtime" means accumulated time during which the System is totally inoperable within the Scheduled Operation Time but outside the scheduled maintenance time and measured from the time Prasar Bharati and/or its employees log a call with the MSI team of the failure, or the failure is known to the MSI from the availability measurement tools to the time when the System is returned to proper operation.

- "Availability" means the time for which the services and facilities are available for conducting operations on the Prasar Bharati system including application and associated infrastructure. Availability is defined as:

{(Scheduled Operation Time – System Downtime) / (Scheduled Operation Time)} * 100%

- "Incident" refers to any event / abnormalities in the functioning of the any of IT Equipment / Services that may lead to disruption in normal operations of the

cloud, System or Application services.

- "Response time" is the time interval between a cloud service customer-initiated event (e.g., logging of the request) and a cloud service provider-initiated event in response to that stimulus.

- RTO (Recovery Time Objective): RTO designates the amount of "real time" that can pass before the disruption begins to impede the flow of normal business operations seriously and unacceptably. The system should have a maximum RTO of 4 hours.

- RPO (Recovery Point Objective): RPO is the amount of downtime a business can tolerate. RPO designates the variable amount of data that will be lost or will have to be re-entered during network downtime. The system should have a maximum RPO of 2 hours

- **Interpretation & General Instructions**

- The availability for a service will be the average of availability across the entire functionality of the platform rather than on individual component or functionality. However, noncompliance with performance parameters for infrastructure and system/service degradation will be considered for downtime calculation.

- MSI shall provide automated tool to monitor and report all the SLAs mentioned in the subsequent sections.

- The SLA parameters shall be monitored on a quarterly basis as per the individual SLA parameter requirements. The MSI is expected to provide the following service levels. In case these service levels cannot be achieved at service levels defined in the tables below, it shall result in a breach of contract and invoke the penalty clause.

- A Service Level violation will occur if the MSI fails to meet Minimum Service Levels, as measured on a Quarterly basis, for a particular Service Level. Overall Availability and Performance Measurements will be on a quarterly basis for the purpose of Service Level reporting. An "Availability and Performance Report" will be provided by the MSI on quarterly basis to Prasar Bharati in an approved

format and a review shall be conducted based on this report. A quarterly Availability and Performance Report shall be provided to the Prasar Bharati at the end of every quarter containing the summary of all incidents reported and associated MSI performance measurement for that period.

- The SLAs will prevail from the start of the Operations and Maintenance Phase. However, SLAs will be subject to being redefined, to the extent necessitated by field experience at the user units and the developments of technology practices globally. Payments to the MSI are linked to the compliance with the SLA metrics laid down in the tables below. The penalties will be computed and calculated as per the computation explained in this Section. During the contract period, it is envisaged that there could be changes to the SLA, in terms of addition, alteration or deletion of certain parameters, based on mutual consent of both the parties i.e., Prasar Bharati and MSI.

Following points outlines the key service level requirements for the system, which needs be ensured by the MSI during the operations and maintenance period. These requirements shall be strictly imposed, and a third-party audit/ certification agency shall be deployed for certifying the performance of the MSI against the target performance metrics as outlined in the tables below.

SLA Management

- The MSI shall provide proper plan, resources, and escalation procedure to Prasar Bharati to report problem case or support request during the warranty and Application Maintenance and Support periods.

- The MSI shall act as a single point of contact and follow-through with the principals of any third-party providers until the successful resolution of the case.

- The support hours for the website shall be:

- **Mondays to Friday 9.30am to 6.30pm**

    (For Saturday, Sunday, and Public Holidays at least One Technical resource must be available to handle issues)

- The MSI's key personnel shall always be contactable via phone.

- The MSI's key personnel shall be on-site to handle severity level 1 problems. As a standard practice it is required to the MSI to provide a resolution Hierarchy and therefore an Escalation matrix to department for L1, L2 & L3 support with proper email ID and Contact number to be provided. However wherever required, the MSI senior technical/management will be required to visit Prasar Bharati Delhi Phase I or Phase II offices for resolving critical issues.

- Upon notification of the problem, the MSI's personnel must respond within the required time specified in this tender during the support hours of the systems.

- The definition of the Priority level is as follows:

Priority Level	Description	Phone/Email Response Time 1	Resolution Time
P1	Causes severe loss of service. Affect the business operation continuity or unable to process critical functions	30 Mins	Within Two (2) hours on report of problem
P2	Causes minor loss of service. Affect a particular work area, but can continue to use for the other work areas using temporary	2 hours	Within one (1) working day on report of problem

P3	Causes no loss of service. The impact is an inconvenience, which may require a workaround to restore the functionality.	4 hours	Within three (3) working days on report of problem

SLA measurement and monitoring for equipment

The users of the system shall report the identified bug / problem/ non-functional component to the successful MSI through telephone / email / letter / verbally/ SLA monitoring tool. For SLA monitoring and Bug tracking MSI is encouraged to opt for vendor agnostic and open-source application for example Trac, Mantis Bug Tracker etc. The Cost associated with sourcing of the

SLA monitoring tool and Bug tracking tool shall be the sole responsibility of the MSI. Resolution time expected for various IT Components is given in the table below. Penalty shall be considered for the official working hours only (i.e., 9:30am to 6.30 pm). MSI need to either fully repair or replace the component by temporary substitute (of equivalent configuration) and make it functional (from the entire system perspective) within the expected resolution time. In case of temporary substitute, the original component needs to be replaced within 7 days else the penalty amount shall be considered. In case of major, damage, MSI needs to replace the component with the brand-new component of same or better specification, configuration, and capacity. The following table defines the SLA requirements for all project components as per the services:

The total outage minutes shall exclude all planned maintenance activities.

Implementation SLAs

18.4.i. **Parameters:** The SLA parameters for the implementation stage would be directly related to the delivery timelines of the deliverables as mentioned in the Timelines, Deliverables and Payment Schedule. This would consist of the

entire commercial bid and the applications system with successful UAT of the same.

18.4.ii. **Period:** These SLAs would be applicable until Prasar Bharati Signoffs. The deliverables would be measured at every payment milestone as mentioned in the matrix **Penalty Value:** For delay of every week in completion & submission of the deliverable penalty shall be levied as below.

Delay (Weeks)	Penalty % on the respective Payment milestone value
1	0.5%
2	1%
3	1.5%

d. **Capping:** The upper limit of penalty would be capped at 5% of the Capital Expenditure . In case the successful MSI reaches the upper limit of penalty at any point of time during implementation phase, Prasar Bharati reserves the right to invoke the termination clause.

e. Delay of every week would also account in increase of additional 2 weeks in the maintenance period which will be over and above the maintenance period of 2 years. This duration would be accounted without incurring any charges to Prasar Bharati.

SLA for CSP (Cloud Service Provider)

The key service level objectives that relate to the cloud services and the related aspects are indicated below:

a) The SLA parameters shall be monitored on a quarterly basis as per the individual SLA parameter requirements. However, if the performance of the system/services is degraded significantly at any given point in time during the contract and if the immediate measures are not implemented and issues are not rectified to the complete satisfaction of Prasar Bharati, then

Prasar Bharati will have the right to take appropriate disciplinary actions including termination of the contract.

b) The full set of service level reports should be available to Prasar Bharati on a quarterly basis or based on the project requirements.

c) The Monitoring Tools shall play a critical role in monitoring the SLA compliance and hence will have to be customized accordingly. The CSP/MSI shall make available the Monitoring tools for measuring and monitoring the SLAs. The CSP may deploy additional tools and develop additional scripts (if required) for capturing the required data for SLA report generation in automated way. The tools should generate the SLA Monitoring report in the end of every quarter which is to be shared with Prasar Bharati on a quarterly basis. Prasar Bharati shall have full access to the Monitoring Tools/portal and any other tools / solutions deployed for SLA measurement and monitoring) to extract data as required during the project.

d) The measurement methodology / criteria / logic will be reviewed by Prasar Bharati.

e) In case of default on any of the service level metric, the CSP shall submit performance improvement plan along with the root cause analysis for Prasar Bharati approval.

f) In case these service levels cannot be achieved at service levels defined in the agreement, Prasar Bharati shall invoke the performance related penalties. Payments to the MSI will be linked to the compliance with the SLA metrics laid down in the agreement.

S No	Service Level Objective	Measurement Methodology /	Target	Penalty
1	Availability of all provisioned Services	Availability (as per the definition in the	Availability for each of the	Default on any one or more of the

	which are provided by CSP including VM, Storage, DB, API gateways security services and any other critical services	SLA) will be measured for each of the services over all the user types as defined in the RFP and Prasar Bharati users irrespective of service	services over all the Portals and APIs (where applicable) >= 99.9%	services will attract penalty as indicated below.
				<99.9% and >= 99.5%
				(1% of the Periodi Payment)
				<99.5% (2% of the Periodic Payment)
2	Availability of the links Internet and MPLS	Availability (as per the definition in the SLA) will be measured for each of the network links provisioned in the cloud to access the portal or admin services	Availability for each of the links:	Default on any one or more of the provisioned links will attract penalty as indicated below.
			>= 99.5%	<99.5% &>=99.0% (1%
				of the periodic Payment)
				< 99.0% (2% of the periodic Payment)
3	Availability of certification of compliance to the		30 working days from the end of the	1% of periodic Payment

	Empanelment of MeitY requirements		Empanelment of MeitY	
4	Response Time			<95% &>=90%
		Average Time taken to acknowledge and respond once a ticket/incident is logged through one of the agreed channels. This is calculated for all tickets/incidents reported within the reporting month.	95% within 15 minutes	(1% of the periodi Payment)
				< 90 (2% of the periodic Payment)
5	Time to Resolve - Severity 1	Time taken to resolve the reported ticket/incident from the time of logging.	For Severity 1,	<98% &>=90%
			98% of the incidents Shall be resolved within 2 Hours of the reporting	(1% of the periodi Payment)
				< 90% (2% of the periodic Payment)
6	Time to Resolve -	Time taken to	95% of Severity	<95% &>=90%

	Severity 2	resolve the reported ticket/incident from the time of logging.	2 within 6 hours of Incident reporting	(1% of the periodi Payment)
				< 90% & (2% of the periodic Payment)
7	Security breach including Data Theft/Loss/Corruption/ unauthorized access	Any incident where in system compromised or any case wherein data theft occurs (including internal incidents)	No breach	For any security incident detected, penalty will be INR 1 Lakhs for each such incident.
				This penalty is applicable per incident.
8	Availability of SLA reports covering all parameters required for SLA monitoring within the defined time	10 working days from the end of the quarter	10 working days from the end of the quarter	1% of periodic Payment
9	Availability of Root Cause Analysis (RCA) ports for Severity 1 & 2		Average within 10 Working days	2% of periodic Payment
10	Setup of Cloud Environment	36 weeks from PO/LOA	No Delay	0.5% of one-time implementation cost

				per
				week delay

Note:

- Periodic Payment means Quarterly Payment for the associated service.

- Days: All Working and Non-working days (365 days in a calendar year)

- 24*7 means three shifts of 8 hours every day. This is applicable for all seven days of the week without any non-working days.

- Severity Levels: Below severity definition, provide indicative scenarios for defining Incident's severity. However, Prasar Bharati will define / change severity at the time of the incident or any time before the closure of the ticket based on the business and Compliance impacts.

Severity Level	Description	Examples
Severity 1	Production Environment is down, or critical malfunction resulting in an inoperative condition or disrupts critical business functions and requires immediate attention.	Non-availability of VM, Storage, API gateway, DB, Internet link and application containers and all security services.
Severity 2	Loss of performance resulting in users (includes public users) being unable to perform their normal activities, as essential functions and critical programs are partially available, the	Intermittent networkconnectivity, UAT and SIT environment.

	environment is usable but severely limited.	

- **Penalty on non-adherence to SLAs for Prasar Bharati Website**

- Any violation in meeting the SLA requirements for incident or resolving bug during warranty and maintenance period, Prasar Bharati shall impose a penalty of 0.2 % of total value of website maintenance for each day delay up to 5 % of website maintenance as maximum penalty. The penalty amount would be calculated and deducted on quarterly basis as may be decided by Prasar Bharati from time to time.

- **Post-Implementation SLAs**

SLA Management and Monitoring Tool as specified in this RFP shall play a critical role in monitoring the SLA compliance and hence will have to be customized accordingly. The third-party testing and audit of the system shall put sufficient emphasis on ensuring the capability of SLA Management and Monitoring Tool to capture SLA compliance correctly and as specified in this RFP. The selected MSI must deploy SLA Management and Monitoring tool and provide for capturing the required data for SLA report generation in automated way. This tool should generate the SLA Management and Monitoring report at the end of every month and every quarter which is to be shared with Prasar Bharati. Prasar Bharati will audit the tool and the scripts on a regular basis.

Where required, some of the Service Levels will be assessed through audits or reports e.g., utilization reports, measurements reports, etc., as appropriate to be provided by the MSI on a quarterly basis, in the formats as required by Prasar Bharati.

S. No	Parameter	Measurement of SLAs
1.	Infrastructure Related SLAs	SLA Management and Monitoring Tool

2.	Application related SLAs	SLA Management and Monitoring Tool

It may be noted that the MSI has to provision for the required tools to measure the SLA parameters. Prasar Bharati reserves the right to appoint Third Party for the audits. Audits will normally be done on regular basis or as required by Prasar Bharati and will be performed by Prasar Bharati or Prasar Bharati appointed third party agencies. MSI shall make provision when requisite permission is given to the Third-Party Agency for carrying out the audit process on regular basis.

Violations and Associated Penalties

The framework for Penalties, as a result of not meeting the Service Level Agreements Targets is as follows:

* A quarterly performance evaluation will be conducted using the Quarterly reporting periods of that period

* The performance will be measured for each of the defined service level metric against the minimum/ target service level requirements and the violations will be calculated accordingly.

* The number of violations in the reporting period for each level of severity will be totaled and used for the calculation of Penalties.

* Penalties applicable for each of the high severity (H) violations are one (1) % of respective Quarterly payment to the MSI.

* Penalties applicable for each of the medium severity (M) violations is half percentage (0.5%) of respective Quarterly payment to the MSI.

* Penalties applicable for each of the low severity (L) violations are Quarter percentage (0.25%) of respective Quarterly payment to the MSI.

* Penalties applicable for not meeting a high (H) severity performance target in two consecutive Quarters on same criteria shall result in additional deduction of 3% of the respective Quarterly payment to the MSI. Penalty shall be applicable separately for each such high critical activity.

* Penalties applicable for not meeting a medium (M) severity performance target in

two consecutive Quarterly periods on same criteria shall result in additional deduction of 2% of the respective Quarterly payment to the MSI. Penalty shall be applicable separately for each such medium critical activity.

- Penalties applicable for not meeting a low (L) severity performance target in two consecutive Quarterly periods on same criteria shall result in additional deduction of 1% of the respective Quarterly payment to the MSI. Penalty shall be applicable separately for each such low critical activity.

- It is to be noted that if the overall penalty applicable for any of the review period during the contract exceeds 25% of the quarterly payment or if the overall penalty applicable for any of the successive Quarterly periods during the contract is above 15%; then Prasar Bharati shall have the right to encase the Performance Bank Guarantee or terminate the contract or both.

Operations and Maintenance Systems

1. Production Application

The failure or disruption of Live (in production) Application has a direct impact on the Prasar Bharati's ability to service its user units, ability to perform critical Prasar Bharati's functions or a direct impact on the organization. This includes but not limited to: -

  i.   Storage, Compute and Data hosted in cloud and DR

  ii.   Web, Application, Database, and Backup Servers

  iii. Cloud, DR network infrastructure

  iv.   Cloud, DR security infrastructure

  v.   Connectivity and Availability of hosted Solution

 The below tables give details on the Service Levels the MSI should maintain. These service levels will be monitored on a monthly basis and measured on a quarterly basis.

2. Service Availability

Service Level Description	Severity of violation	Measurement

Composite Service Availability should be minimum 99.95%	High	Availability over the Quarter	No. of Violations to be counted for calculation of penalty
		< 99.95% &>= 99.5%	1
		< 99.5% &>= 99%	2
		< 99%	3 for every percentage drop or part thereof below 99%
		Composite Service Availability means availability and performance of infrastructure and application services for proposed Solution.	

Application Performance

a. The MSI is expected to submit a quarterly report on the availability of Prasar Bharati Enterprise Solution (NES). The below tables give details on the Service Levels the MSI should maintain.

1	Average Application Response Time	Medium	Average Application Response Time during peak usage hours as measured at any of Prasar Bharati's location shall not exceed 3 seconds. The list of critical business functions and peak usage hours will be identified by Prasar Bharati during the Detail Design phase. This service level will be measured on a quarterly basis.

Average Application Response Time over the Quarter	No. of violations post which penalty clause will be invoked
> 3 sec &<= 5 sec	2
> 5 sec &<= 8 sec	4
> 8 sec	5 for every second increase or part thereof exceeding 8 seconds

2	Maximum Time for NES Home Page opening	Low	Maximum Time for NES Home Page opening during peak usage as measured at any of Prasar Bharati's location shall not exceed 2 seconds. This service level will be measured on a quarterly basis.

Maximum Time for Home Page opening over the Quarter	No. of violations post which penalty clause will be invoked
> 1.5 sec &<= 3.5 sec	2
> 3.5 sec &<= 5.5 sec	3
> 5.5 sec	2 for every second increase or part thereof exceeding 5.5 seconds

3	Menu Page after User Login	Low	Menu Page after User Login opening during peak usage as measured at any of Prasar Bharati's location shall not exceed 2 seconds. This service level will be measured on a quarterly basis.

			Menu Page after User Login opening over the Quarter	No. of violations to be counted for calculation of penalty
			> 1.5 sec &<= 3.5 sec	2
			> 3.5 sec &<= 5.5 sec	3
			> 5.5 sec	2 for every second increase or part thereof exceeding 5.5 seconds
4	Menu Navigation – To display the menu as per the defined user role and profile	Low	Menu Navigation – To display defined user role and profile as measured at any of NF seconds. This service level will be	display the menu as per the page opening during peak usage AI's location shall not exceed 2 seconds measured on a quarterly basis.
			> 1.5 sec &<= 3.5 sec	2

5	Screen Opening – To display the selected data entry screen from the menu chosen	Low	Screen Opening – To display screen from the menu measured at any of Prasar Bharati' seconds. This service level will be	display the selected data entry during peak usage as location shall not exceed 2 easured on a quarterly basis.
			> 3.5 sec &<= 5.5 sec	3
			> 5.5 sec	2 for every second increase or part thereof exceeding 5.5 seconds
			Screen Opening – To display the selected data entry screen from	**No. of violations to be counted for calculation of penalty**

			the menu chosen over the Quarter	
			> 1.5 sec &<= 3.5 sec	2
			> 3.5 sec &<= 5.5 sec	3
			> 5.5 sec	2 for every second increase or part thereof exceeding 5.5 seconds
6	Response time to commit a transaction • Simple Complexity • Medium Complexity • High Complexity (Complexity of the transaction to depend on the complexity of	High	Response time to commit a transaction during peak usage as measured at any of Prasar Bharati's location shall not exceed 4 seconds for Simple transactions, 7 seconds for Medium complexity transactions and 10 seconds for High Complexity transactions. This service level will be measured on a quarterly basis. **Penalty for Simple transaction SLA violation**	

Penalty for Simple transaction SLA violation

Response time to commit a Simple transaction over the Quarter	No. of violations to be counted for calculation of penalty
> 4 sec &<= 6 sec	2

the business logic and stored procedures committed at the database level)			> 6 sec &<= 8 sec	3
			> 8 sec	4 for every second increase or part thereof exceeding 8 seconds

Penalty for Medium Complexity transaction SLA violation

Response time to commit a Medium Complexity transaction over the Quarter	No. of violations to be counted for calculation of penalty
> 7 sec &<= 9 sec	2
> 9 sec &<= 11 sec	3

				> 11 sec	4 for every second increase or part thereof exceeding 11 seconds

Penalty for High Complexity transaction SLA violation

Response time to commit a High Complexity transaction over the Quarter	No. of violations to be counted for calculation of penalty
> 10 sec &<= 12 sec	3
> 12 sec &<= 14 sec	4
> 14 sec	5 for every second increase or part thereof exceeding 14 seconds

7	Response time for Screen with Query Retrieval • Simple Query • Medium Complexity Query • High Complexity Query (Complexity of the query will depend on the	High	Response time for Screen with Query Retrieval during peak usage as measured at any of Prasar Bharati's location shall not exceed 4 seconds for Simple Query, 7 seconds for Medium Complexity Query and 10 seconds for High Complexity Query. This service level will be measured on a quarterly basis. **Penalty for Simple Query SLA violation**

Response time for Screen with Query Retrieval for a Simple Query over the Quarter	**No. of violations to be counted for calculation of penalty**
> 4 sec &<= 6 sec	2
> 6 sec &<= 8 sec	3

business logic, size of tables in databases being searched, indexing of database and the way procedures are written to retrieve information)			> 8 sec	4 for every second increase or part thereof exceeding 8 seconds
			Penalty for Medium	**Complexity Query SLA violation**
			Response time for Screen with Query Retrieval for a Medium level transaction over the Quarter	**No. of violations to be counted for calculation of penalty**
				2
			> 7 sec &<= 9 sec	3
			> 9 sec &<= 11 sec	
			> 11 sec	4 for every second increase or part thereof exceeding 11 seconds
			Penalty for High	**Complexity Query SLA violation**
			Response time for Screen with Query Retrieval for a Complex transaction over the Quarter	**No. of violations to be counted for calculation of penalty**
			> 10 sec &<= 12 sec	3

			> 12 sec &<= 14 sec	4
			> 14 sec	5 for every second increase or part thereof exceeding 14 seconds
8	Reports Generation	Medium	Reports Generation Response Time during peak usage as measured at any of Prasar Bharati's location shall not exceed 4 seconds for Simple Query, 7 seconds for Medium	

Handholding Support: Application Support

- Level 1 (L1) Defects: The failure to fix has an immediate impact on the Prasar Bharati's ability to service its user units, inability to perform critical Prasar Bharati office functions or a direct impact on the organization.

- Level 2 (L2) Defects: The failure to fix has an impact on the Prasar Bharati's ability to service its user units/ that while not immediate, can cause service to degrade if not resolved within reasonable time frames.

- Level 3 (L3) Defects: The failure to fix has no direct impact on the Prasar Bharati's ability to serve its user units or perform critical Prasar Bharati's office functions.

- The severity of the individual defects will be mutually determined by the Prasar Bharati and MSI.

- This service level will be monitored on a monthly basis.

- The below tables give details on the Service Levels the MSI should maintain.

Service Level Description	Severity of Violation	Measurement

Application Support Performance	High	95% of the Level 1 defects shall be resolved within 4 business hours from the time of reporting full details. This service level will be monitored on a monthly basis.		
		Performance over the Quarter	**Violations for calculation of penalty**	
		< 95% &>= 90%	1	
		< 90% &>= 85%	2	
		< 85%	3	
Application Support Performance	High	95% of the Level 2 defects shall olved within 72 hours be re time of reporting full from the a monthly basis. details. This service level will be monitored on		
		Performance over the Quarter	**Violations for calculation of penalty**	
		< 95% &>= 90%	1	
		< 90% &>= 85%	2	
		< 85%	3	
Application Support Performance	High	100% of the Level 3 defects shall be r the time of reporting full details.This service level will be monitored on	resolved within 120 hours from a monthly basis.	
		Performance over the Quarter	**Violations for calculation of penalty**	

< 100% &>= 90%	1
< 90% &>= 80%	2
< 80%	3

SLA Management for Website

i.   The MSI shall provide proper plan, resources, and escalation procedure to Prasar Bharati to report problem case or support request during the warranty and Application Maintenance and Support periods.

ii.   The MSI shall act as a single point of contact and follow-through with the principals of any third-party providers until the successful resolution of the case.

iii.   The support hours for the website shall be:

- Mondays to Friday 9.30am to 6.30pm

    (For Saturday, Sunday, and Public Holidays at least One Technical resource must be available to handle issues)

iv.   The MSI's key personnel shall always be contactable via phone.

v.   The MSI's key personnel shall be on-site to handle severity level 1 problems. As a standard practice it is required to the MSI to provide a resolution Hierarchy and therefore an Escalation matrix to department for L1, L2 & L3 support with proper email ID and Contact number to be provided. However wherever required, the MSI senior technical/management will be required to visit Prasar Bharati Delhi Phase I or Phase II offices for resolving critical issues.

vi.   Upon notification of the problem, the MSI's personnel must respond within the required time specified in this tender during the support hours of the systems.

vii.   The definition of the Priority level is as follows:

Priority Level	Description	Phone/Email Response Time 1	Resolution Time 2
P1	Causes severe loss of service. Affect the business operation continuity or unable to process critical	30 Mins	Within Two (2) hours on report of problem
P2	Causes minor loss of service. Affect a particular work area, but can continue to use for the other work areas using temporary	2 hours	Within one (1) working day on report of problem
Priority Level	Description	Phone/Email Response Time 1	Resolution Time 2
P3	Causes no loss of service. The impact is an inconvenience, which may require a workaround to restore the functionality.	4 hours	Within three (3) working days on report of problem

- *18.7.8.* Penalty on non-adherence to SLAs

  Any violation in meeting the SLA requirements for incident or resolving bug during warranty and maintenance period, Prasar Bharati shall impose a penalty of 0.2 % of total value of website maintenance for each day delay up to 5 % of website maintenance cost as maximum penalty.

  - The penalty amount would be calculated and deducted on quarterly basis as may be decided by Prasar Bharati from time to time

- *18.7.9 Penalty on resource replacements*

  - The every instance of resource replacement (maximum of 2 allowed) shall be penalized at Rs. 5,00,000 per instance

10.22   Technical Specifications

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
1	**Data Centres**	• The proposed Data Centre (Both DC and DR) should be at least Uptime Tier III or SOC Rated 3 certified from authorized agency. • The DC and DR of Cloud based solution should be hosted in India. No data sharing/replication to any Data Centre outside the boundaries of India country • The proposed Data Centre (Both DC and DR) building should be recent and operational for not more than 10 years from the date of bid submission. • The proposed Data Centre (Both DC and DR) should have Redundant dedicated power feeds right up to DC building, and onwards N+N UPS feed up to the Customer racks • The data centers should be able to support long term scalability for Prasar Bharti setup to expand to cover the entire Indian population as its subscribers. • The data centers should be physically secure and should be able to provide biometric access controlled and CCTV monitored dedicated cage / room for Prasar Bharti setup. • Data Centres should be certified for ISO 27001, 27701, 27702, 27701 and TPN.		
2	**Private Cloud**	• This cloud infrastructure should be isolated and		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		secured in nature and dedicated to tenant.		
		• Cloud infrastructure shall be designed for high availability with dual redundancy for all solution components to enable reliable auto recovery workflows.		
		• Cloud platform should support cloud native Infrastructure services, API, and tools to work seamlessly.		
		• Cloud platform should support and be available to build secure and compliant hybrid cloud architectures.		
		• Offered cloud solution must be scalable. The end user shall be able to add/expand or scale out/up the infrastructure in future on demand basis.		
		• Cloud platform should provide the functionality to protect data from accidental deletion for the period of 3 months.		
		• Cloud platform should be able to provision any service in less than 15 minutes from the time of request.		
		• Compute		
		• Cloud platform should provide completely managed computer service for all the tenants.		
		• Capability to provision virtual machines/container workload over API calls without any manual intervention.		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks

		• Service shall allow users to load applications and data securely and remotely onto the computing or virtual machine instance from the SSL VPN clients only as against the public internet.
		
		• Configuration and management of the virtual machine shall be enabled via a Web browser over SSL VPN/Secure tunnel as against the public internet.
		
		• Cloud service architecture should be in such a way that it avoids VM outages or downtime when the provider is performing any kind of hardware or service maintenance at the host level.
		
		• CSP should these below services to support content and its management but limited to these below services.
		
		   o Compute as a Service (VM / containers service)
		
		   o File, Block and object Storage
		
		   o Database service
		
		   o Backup & Recovery as a Service
		
		   o Network and security
		
		      ▪ Next gen Firewall, Intelligent threat protection and remediation
		
		      ▪ DRM & Zero Trust should be built into the solution.		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		○ Media asset management ○ CDN or Multi CDN ○ Migration as a Service ○ Continuous monitoring & IT Management service		
3	**Connectivity**	• It should have provision and architecture should support private point to point and public Internet connectivity. • It should support the future expandability and business variable demand as per customer requirements. • Data center should have redundant fiber connectivity from multiple telecom operators and there must be at least 3 paths to enter data center facility		
4	**Migration & Consolidation**	• The Cloud Service provider shall migrate and consolidate the existing application and database to the CSP's cloud from the current cloud hosting. • Customer, its application provider & IT Department will provide all assistance to with the cloud service provider for data migration. Also, the IT Department and application development teams will support the CSP during the deployment of the applications at the Cloud Solution site. The following activities are to be undertaken for migrating to cloud:		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		• Migration planning • Acceptance before execution • Rollback plan • Final closure and acceptance • Handover to Operation as part of continuous support		

1.1.1. OTT Core Platform

The scope shall be the hosting, testing, and commissioning of the private cloud-based solution viz. OTT Platform solution for Prasar Bharti. The MAM Platform should be Cloud native, highly efficient and feature rich OTT Platform available "as-a-service". The scope includes broadly the following 4 components:

3. Cloud based OTT platform: Setting up and 24*7 operations support of Media monetization system (OTT Platform) with the OTT Middleware for Prasar Bharti which includes, robust Content Management System (CMS), User Management & Authentication, Content Discovery and Recommendation Engine, which will support API integrations to 3rd party application and support for content delivery to multi OS Devices like Smartphones, Tablets, Web browsers and Smart TVs.

4. Private Cloud / Data Centre services: The solution (including the primary and DR sites of the proposed OTT platform) shall be hosted at Tier III / IV Data centers which must be in NCR (primary site) and Greater Mumbai region (DR site).

Detailed specifications of these components are as follows:

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
1	**Architecture**	• The solution should have Elastic resources to scale up & scale out within mutually agreed time period.		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		• The solution shall consist of main subsystems or support;		
		• Middleware		
		• OTT Live transcoding system, hardware based (GPU) to reduce Opex costs.		
		• Integration with several Content Delivery Networks (CDN)		
		• Digital Rights Management (DRM) system		
		• Support for different levels of High-bandwidth Digital Content Protection (HDCP 1.x, 2.x, 2.2)		
		• Integration with SSAI /Ad insertion solution		
		• Ad serving solution can plug into multiple SSP's, programmatic markets and allow for trafficking of direct campaigns		
		• Ad server should allow running of public service messages,		
		• Ad server allows for creation of "waterfall" to prioritize ad fills based on percentage of ads, price-based ads or rotation of ads.		
		• Video/Audio Quality Monitoring system		
		• Network infrastructure including Firewall infrastructure		
		• Network management solution		
		• Comprehensive development/staging environment covering entire solution to test products, packages and services before		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		the commercial launch & simulate customer problems		
2	**Standard Requirements**	• The proposed solution shall support ABR streaming technologies; • MPEG-DASH 2nd Edition Specification as per ISO/IEC 23009) • Apple HTTP Live Streaming (HLS) • Common Media Application Format (CMAF) • The proposed solution shall be able to support at least five profiles starting from 128kbps for resolution from 128K to 4K resolution with configurable size of 64kbps granularity for a single video stream • The proposed solution shall support; • H.264 aka MPEG-4 Part 10 'Advanced Video Coding' (AVC) as per ITU-T H.264 and ISO/IEC 14496-10 • H.265 aka HEVC as per ITU-T H.265 and ISO/IEC 23008-2 • AOMedia Video 1 (AV1) • Seamless adoption of future audio-video coding techniques • The proposed solution shall support Video Multi-Ad Playlist (VMAP) for the integration with 3rd party Ad server •		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks

3	**Feature requirements**	• All features and functionalities mentioned in this RFP and the supported list of the proposed solution shall be provisionable and chargeable as an individual product/service to the subscriber or product/service bundle to the subscriber.
		
		• The proposed solution shall be able to provide OTT services for;
		
		  • Individual user
		
		  • Family user
		
		• The proposed solution shall uniquely identify the customers using either an Account Number or a unique username.
		
		• All subscribers shall have a defined life cycle for below status (but not limited to) with validity period where service will be terminated with the expiration of the validity period;
		
		  • Idle
		
		  • Active
		
		  • Suspended
		
		  • Terminated
		
		  • Cancelled
		
		• The proposed solution shall facilitate the subscriber to activate/deactivate product/service via the user interface and self-care portal subjected to conditions imposed by Prasar Bharti from time to time.
		
		• All media content of the proposed solution shall		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks

		support up to:
		
		• Radio Streaming. 128K
		
		• Standard Definition (SD) 576i/50
		
		• High Definition (HD) 1080p/60
		
		• Ultra HD/4K p60
		
		• The proposed solution shall support A-la-carte feature so that subscriber can self- purchase channels, packages and contents via the UI/Self-care portal/Client App. Subscription changes shall accordingly reflect on middleware and back-office systems (OSS/BSS).
		
		• The proposed solution shall deliver below features:
		
		  • Linear TV: Channel numbering can be configurable based on the customer segment or category with different resolution (SD/HD/4K)
		
		  • Time-Shift TV (TSTV): Catch-Up TV and Delayed TV (Applying trick play controls on live content). Time-Shifted content shall be accessible via EPG for play back.
		
		• Video on Demand (VoD)
		
		  • Support purchasing of VoD assets through the client application and self-care portal.
		
		  • VoD libraries shall be configured based on the customer segment or category.
		
		  • Same VoD asset with different resolution (SD/HD/4K) shall be configured based on		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		the customer segment or category.		
		• VoD assets shall be configured as Transaction VoD (TVoD) as well as Subscription VoD (SVoD).		
		• Categorize VoD content into multiple categories, Movies on demand, TV Series, including support of Seasons and Episodes, Educational, Documentary, etc.		
		• Trick play options, Play, Pause, Fast-forward (.5x, 2x, 4x, etc.), Rewind (.5x, 2x, 4x, etc.)		
		• Support HTML5 or other latest web technologies for the user interface.		
		• Multiple user profiles (multiple OTT clients) shall be given to a single Prasar Bharti where billing will be done to the customer.		
		• Multiple user profiles shall be identified uniquely within the solution and authenticated by a single authentication credential or multiple credentials which shall be configurable per customer.		
		• Have a maximum of 5 profiles given to a customer.		
		• Able to limit the number of devices per customer.		
		• capable of accessing the user profiles across authenticated customer devices.		
		• Multiscreen functions:		
		• Provide multi-screen service to end-user		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		who can have the services from anywhere using any device specifically smartphones (iOS, Android), Web browser, Amazon Fire TV. • Allow customer to begin viewing on one device, then continue viewing on another device. • Able to maintain common subscription among primary and secondary devices. • Enable simultaneous access of services from primary and secondary devices provided with required subscriptions. • Shall be able to limit the number of devices per subscriber. • Provide capability to send emergency alerts, App updates, and credit control messages to the OTT client based on the subscriber group. • Onscreen messaging capability shall be available to use for content and channel promotions. • Provide ad insertion solution(s) for OTT subscribers by inserting or replacing video ads in a fully automated manner for Linear content (Live TV), On demand content (VoD, SVoD, TSTV, etc.), Freemium Offerings • Provide Pre-Roll and Mid-Roll ads based on their position or placement in the video playback. • Support triggering mechanisms such as SCTE-		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks

		35 and Time based – every 20 mins, 1 hour, etc.
		
		• Provide an end-to-end solution for server-side ad insertion (Video Ad Server / Server Side as Insertion; SSAI).
		
		• Enable SSAI to deliver dynamic ad insertion, allowing the targeting of users by IP address and device.
		
		• Support personalized and targeted advertisements based on:
		
		    • User profiles/preferences
		
		    • Content types and metadata info
		
		    • Geography or Demographics
		
		    • Device capabilities and types
		
		• Provide comprehensive reporting which allows for:
		
		    • Real-time analytics on ad usage and statistics
		
		    • Understanding and monitoring of ad sales performance, at both macro and micro levels.
		
		    • Insights that inform real-time decision-making and yield optimization.
		
		    • Campaign/Promotion information.
		
		• Able to extend ad usage and statistics via standard API for advertisers.
		
		• Supports VAST and VMAP as defined by the Interactive Advertising Bureau (aka IAB).		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		• Utilize a video ad server that: • accesses a suite of industry-leading tools from a single real-time dashboard. • enables trafficking • prioritizes campaigns based on multiple simultaneous criteria • monetizes ad inventory • maximizes revenues • Shall utilize optimization algorithms and yield management engines to achieve: • optimal fill / sell-thru rates • maximum results for all advertising campaigns • Enable the creation of a waterfall to sell inventory and optimize yields via: • direct sales efforts • programmatic advertising • supply-side platforms (SSPs) • ad marketplaces • Allow unsold / 'remnant' inventory to be filled by: • Promotional messages for Prasar Bharti's content and services • Public Service messages • Subscriber management • Basic provisioning (Subscriber/Product		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks

		provisioning)
		
		• Mass provisioning (Subscriber/Product provisioning)
		
		• Capable of disabling services in the Main Menu by customer category.
		
		• Billing policy /subscriber charging management:
		
		   • Basic service billing (Event/Time Based)
		
		   • Online transactions
		
		• Provide multiple packages allocating any number of channels and any type of channel.
		
		• Configure packages by restricting selected contents (Channels, VoD, SVoD) and subscribers shall be able to view only the allocated contents.
		
		• Define additional channels for a given package by allocating single or multiple channels selecting from the remaining channels.
		
		• Able to provide cross product validation. Ex: To subscribe to SVoD package X it is mandatory to have a subscription for al-a-carte channel package Y.
		
		• Able to configure products associating multiple titles / assets.
		
		• Able to associate a single content title to multiple products.
		
		• Provide product bundling of different types of products and service provision-ability.		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		• Provide both transaction and subscription purchase options for the same content.		
		• Provide business rule configuration upon product and packages.		
		• Provide promotional vouchers on products and packages.		
		• Support online and offline charging options.		
		• Business rule configuration		
		• Provide the below dynamic business models which is configurable and testable within the click of a button:		
		• Cross selling and Up selling		
		• Bundle offers		
		• Subscription based offers (Ex: SVoD)		
		• One-time sales		
		• Trial entry programs		
		• Daily, weekly, monthly, quarterly, annual and seasonal subscriptions		
		• Product mix offers		
		• Provide below functions:		
		• Subscription management - inquiries service, order service, modify service, and cancel service .		
		• Reporting – viewing, creating operator allowed reports.		
		• New subscriber registration for OTT with		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks

		simplified steps (e.g.: Mobile number-based self-care profile creations)
		
		• Able to add new TV packages/products to the portal where new and existing subscribers can order, upgrade etc.
		
		• Provide zero touch OTT user sign up where new subscribers shall be provisioned automatically via web portal without operator intervention.
		
		• Existing subscribers can change their subscription level and have it updated in the back- end automatically without provider assistance.
		
		• Support below end user devices, but not limited to;
		
		   • Mobile phones (Operating Systems with Android and IOS)
		
		   • Browser Based Video for Apple, Window or Linux based Browsers.
		
		   • Digital Media Players such as Amazon Fire TV Stick, Roku, etc.…
		
		• Support different types of operating systems of the end user devices:
		
		   • Downloadable App for Android
		
		   • Downloadable App for iOS
		
		   • Connected/smart TV App/web application
		
		   • Web based application for Windows/ Mac/ Unix flavors		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks

		• Apple TV, Amazon Fire, Roku, Android TV
		
		 • Provide a list of devices which are supported by the proposed solution, including browser/operating system version details.
		
		 • All upgrades and versions of the client App shall be provided at no cost to Prasar Bharti during active support contract
		
		 • The proposed solution shall provide:
		
		      • Application downloads from native App stores (such as Apple store, Google Play Store)
		
		      • Upgrade services
		
		      • Push notification services
		
		 • Support remote software/firmware update/upgrade
		
		 • Support below for App based clients:
		
		      • Able to download the video client App from a relevant App Store.
		
		      • User registration & provisioning shall be done via Prasar Bharti client App.
		
		      • User registration & provisioning shall be done automatically via one time password which shall be received via E-mail and SMS.
		
		      • One-time password received to the device shall be read automatically by provisioning process to avoid manual intervention of the		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		user.		
		• In case the user wants to use a secondary device (e.g., Multiscreen) to access services, QR code, primary device authorization mechanisms should be available		
		• Capability to play back multiple audio and video formats Multiple audio tracks/subtitles supportability and selection supportability with the language descriptor according to ISO 639-2		
		• Customized App support		
		• UI/UX requirement - The proposed solution shall provide easily navigable user-friendly UI/UX for OTT clients		
		• Provide the navigation capability to any feature or setting within five levels or clicks.		
		• Provide channel memorizing capability where last viewed channel shall be displayed upon client reboot.		
		• Provide multilingual support where multiple languages (to be determined) can be used for the subscriber User Interface.		
		• Provide content related controls for Password settings, by the customer and the service provider		
		• Provide listing of favorite channels/content for quick navigation using UI and single click in App.		
		• Minor updates and bug fixes shall be provided at FOC to Prasar Bharti.		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		• UI upgrades except design changes and additional features shall be provided to Prasar Bharti. If any cost increase is involved, it shall be clearly stated and indicated in the proposal. Otherwise, it shall be considered as FOC.		
		• Solution shall be scalable up to 10 Crores Subscribers.		
		• Solution shall be highly scalable in terms of subscriber capacity, number of linear and non-linear channels, concurrent sessions, and feature additions.		
		• Able to expand without affecting the services and operation.		
		• Bidder shall propose an initial hardware capacity of 2.5 crores subscribers.		
		• Bidder shall arrange necessary capacity expansions for the solution as requested by Prasar Bharti within two (2) weeks for software licenses and within three (3) months for hardware expansions.		
		• Solution shall ensure below listed performance parameters (but not limited to) irrespective of any load of the system inclusive of network delays for OTT service delivery.		
		• Page loading (opening quick menu pages, grid menu, page traversing from one page to another, etc.) shall be less than 1 sec.		
		• Parallel content ingestion shall be supported up to 3 parallel ingestions.		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		• Changes to the published metadata shall be within 30 (thirty) minutes.		
		• Last minute program schedule changes shall be accommodated immediately for channels with linear and TSTV enabled.		
		• Proposed solution shall ensure 99.999% availability.		
		• Solution shall be designed in such a way that there is no single point of failure.		
		• Solution at the production site shall provide a highly available architecture with load sharing.		
		• Solution shall ensure service availability during site disasters.		
		• Bidder shall clearly detail the architecture and design of the solution to be a highly available, fully redundant, fault tolerant solution		
		• Content management:		
		• Assets and rights management		
		• Geo-blocking: ability to whitelist or blacklist content on an asset-by-asset basis or package basis by IP Address, country		
		• Subscriber management:		
		• Preference and profile management		
		• Products & billing management		
		• Content fulfilment & delivery		
		• EPG publishing		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks

		• Customer self-care management
		
		• Content recommendation engine
		
		• Provide a subsystem incorporating tools for content acquisition, processing and distribution. Content refers to media assets, meta-data, and associated supplementary items such as trailers, movie posters, music-clips etc. that need to be streamed to the end devices.
		
		• Provide a subsystem incorporating tools for content acquisition, processing and distribution. Content refers to media assets, meta-data, and associated supplementary items such as trailers, movie posters, music-clips etc. that need to be streamed to the end devices.
		
		• Provide the ability for service provider to perform the following general content acquisition, processing and distribution functionalities:
		
		    • Multiplex multi-language audios, multi-channel audios and multi-language subtitling to final delivery formats.
		
		    • Process corresponding meta-data
		
		    • Transcode the content to codec suitable for OTT delivery
		
		    • Proposed Subsystem mentioned above of the OTT solution shall allow manual ingestion of new content via a GUI based interface.
		
		    • Proposed OTT solution shall provide the ability for service provider to		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		Encode/Transcode VOD source contents to format suitable for the delivery over network and consumed by end devices. • File Based Transcoding		

1.1.2. MAM Platform (Media Asset Management)

The scope shall be the hosting, testing, and commissioning of the private cloud-based solution viz. Media Assets Management System (MAM), for Prasar Bharti. The MAM Platform should be Cloud native, highly efficient and feature rich Media Asset Management (MAM) application available "as-a-service".

The scope includes broadly the following 3 components:

1. Cloud based MAM system: Setting up and 24*7 operations support of the customized enterprise grade Media Asset Management system (MAM) for Prasar Bharti

2. Migration and Integration Services: Integration with existing MAM systems and Migration of data from existing MAM systems to the cloud-based system. Configuration and use of the data in existing storages available at regional studios forming a hybrid solution as and when required.

3. Private Cloud / Data Centre services: The solution (including the primary and DR sites of the proposed MAM platform) shall be hosted at Tier III / IV Data centers which must be in Mumbai region (primary site) and NCR (DR site).

Detailed specifications of these components are as follows:

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
1	**Architecture**	• The proposed MAM solution should be cloud-ready or cloud-native. • This should support multi-tenant environment.		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks

		• The proposed MAM system shall be based on client-server scale-up architecture.
		
		• The Proposed MAM solution shall rely on 'Generic storage' technology (native CIFS)
		
		• The proposed MAM solution shall provide web-based administration module.
		
		• API-based integrations with media applications:
		
		    • NLE suites
		
		    • Audio watermarking
		
		    • Video Watermarking
		
		    • Video Restoration applications
		
		    • Scheduling & Playout applications
		
		• The proposed MAM system shall integrate with directory services like Active Directory, LDAP etc. for users and group management.
		
		• Virtualization of video and audio editing applications and integration with other existing MAMs for seamless collaboration across locations.
		
		• Proposed MAM system shall have a dedicated search engine based on the metadata schema.
		
		• The solution shall support dynamic workflow creation based on various criteria.
		
		• Create an asset repository that can automate the delivery of approved, brand compliant content, allowing brands to create an extensive catalogue for digital assets, consisting of video,		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		images, text and metadata.		
		• Multiple storages configurable along with archival mechanisms in place to shift data to lower storage tiers, such as erasure coded LTO, and object storage.		
		• Support for high availability playback; with ability to support multiple audio tracks, captions, or subtitles during playback.		
2	**Self service capabilities**	• It should have intuitive web-based GUI for admin and users. • RBAC and MFA should be supported		
3	**User and Workflow management**	• Dedicated module for user management supporting multiple users and user groups • The user management console shall be able to provide information like User Profile, Access rights, on media/group of media. • The administrator shall be able to define various categories and user groups as per the requirement. The rights/roles on media assets in respect of various users, groups shall be administered by the system administrator. • Users at different locations shall be able to share assets with others. • The application shall support role-based access control to enforce separation of duties • Users' activities shall be recorded as logs. • Users can search for assets via a multitude of		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		options with easy identification of assets through metadata cataloguing.		
		• The system shall be able to send email and text messages notifications.		
		• The above features are required but does not limit you to specify any other further capabilities.		
4	**Ingest**	• Capable of automatic ingest from on premise or Cloud storage.		
		• Provide a web-based interface to upload asset (Video/Audio/ Images) along with metadata		
		• Ingested material shall be automatically transcoded to low resolution browse quality files.		
		• All ingested material (high resolution, browse quality etc.) is stored in a centralized cloud storage that is available to all users simultaneously.		
		• Movement of data between high performance storage and cold archive should be seamless.		
		• To avoid multiplicity of the assets on the system, it must have inherent notification and alert system.		
		• Support multiple broadcast quality codecs and MXF wrappers.		
5	**Metadata**	• Support flexible and customizable metadata fields.		
		• The system shall support flexible metadata schemas. Additional metadata field's creation		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		shall be possible and there shall be no restrictions on the number of metadata fields.		
		• The system shall support addition of the following metadata field types dynamically: Date field, Text-field, text area, select list, select button, multiple select buttons, text auto suggests, hierarchical list, multiple select hierarchical lists, linked lists.		
		• Shall be able to generate unique accession no. for each of the ingested assets which should be in the standard format like IBTNS or others.		
		• Metadata can be exported and imported to and from external systems using open formats like XML/JSON/CSV.		
		• Allow for metadata tagging for Video, Audio, documents, Office documents, stills, subtitling files, PDF, Image and graphics etc.		
		• The system shall be capable of storing not only media files (such as Video and Audio) but also other kinds of documents as standard assets; these documents shall include at least office documents, stills, subtitling files, PDF, Image and graphics etc.		
		• Timecode based metadata tagging shall be possible.		
		• Control the media to ingest as well as the metadata to import, schemas can be customized on the basis of different types of content which can be generated manually, automatically or		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		imported via API or sidecar .XML. • Time code ranges shall be convertible to sub-clips, that can be treated as unique assets.		
6	**Browsing & Search**	• Provide web access tool UI for retrieval, preview, annotate, edit and select shots of asset-based metadata. • Ability to search time-based and asset-based metadata. • Ability to run a full-text search over all the metadata fields thus supporting global search. • Each user-defined field must have a unique identifier, a display name and a specific type that determines both the type of data stored in the field and the user interface for entering that data. The following type must be supported: Plain text, Multi line text and Picklist. • Must use full-text indexing to provide "Search hints". "Search hints" provide as-you-type hints to the words or phrases that a user might want to search for using knowledge of the words and phrases that are present in the database		
7	**Editing**	• Provide web-based rough-cut editing of media files. • The MAM system shall allow triggering to transcode the media files from the web-based interface to the Prasar Bharti's chosen file-based transcoding format or craft editing tools. • User shall be able to define the formats and		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		technical parameters for rendering the media. • Provide back-office rendering, allowing the users to execute other operations, while the system is rendering the rough cuts. • Support panel integration and extensions to integrate and interface with standard broadcast editing software, e.g., Final Cut Pro, Premiere Pro, Resolve, Avid, etc.		
8	**Social media integration**	• The MAM system must be capable of providing integration support with 3rd party social media platforms		
9	**Storage management**	• The MAM system should be configurable to use storage for media assets in a multi-tier storage system, on-line or near-line storage (deep storage).		
10	**Library management**	• The media assets may be available at different locations and in heterogeneous storage systems, and these libraries shall be hosted on Media Asset Management System. • A centralized repository of all the assets shall be created acting as a large content library. • Support sharing of media to external users with a time-based validity of the link or URL pre-defined by the authorized user.		
11	**Back-end media operations**	• Provide means to run all media related operation in such a way that it does not disrupt user operations.		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		• Ability to set specific purge policy to automatically delete assets and set specific purge rights, applied to the users.		
12	**API tool integration**	• Provide a REST API, B2B based on well-known standards that third party applications will be able to consume. • The API documentation shall be available online		
13	**Service Support**	• Patches and all upgrades shall be available without any additional cost. • Premium support bundled for the contract period		

1.1.3. CDN (Content Delivery Network)

The scope shall be to propose a CDN to distribute media with the help of network of servers strategically placed across different geographical locations. It should help deliver media content efficiently by caching and distributing it closer to the end-users. The solution should ensure high-quality streaming experiences by reducing buffering and minimizing latency.

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
1	**Main features**	• Provider should support a Multi CDN solution to optimize multiple networks • Support "On Network Storage" to act as origin • Support HLS and MPEG Dash Push or Pull to ingest live channels • CDN should have a Global footprint with Global edge caching and peering across multiple networks		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		• Support token authentication of streams		
		• Allow Manifest Personalization		
		• Support Advanced caching including Intelligently cache content close to viewers, offloading traffic from origin infrastructure		
		• CDN should Scale rapidly for large audiences, planned or unexpected — by leveraging the distributed network's ability to dynamically and intelligently distribute load		
		• Support segment pre-fetch		
		• CDN Content protection: Protect content with encryption, watermarking, access revocation, and enhanced proxy detection.		
		• The CDN solution securely delivers prepared, pre-segmented, HTTP-based live and on-demand streaming media, including support for the following video formats:		
		• HTTP live streaming (HLS)		
		• Dynamic adaptive streaming over HTTP (MPEG-DASH)		
		• Common media application format (CMAF)		
		• CDN should have media reports and log delivery.		
		• Support Adaptive Media Delivery optimized for adaptive bitrate (ABR) streaming to provide a consistent, high-quality viewing experience across the broad variety of network types — fixed or mobile — at varying connection speeds.		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		• CDN components shall be capable of deploy as VNF which could work on SLTVC provided NFVI environment. (optional) • Common Encryption Scheme (CENC) which provides standard encryption and key mapping methods to use with one or more digital rights and key management systems. • Just in Time Packaging to optimize network efficiency and caching. • Support HTTP 2 & 3, IPv6 • Support Token & Cloud Authentication • Support Watermarking •		

1.1.4. Transcoding and Encoding

The scope of this project shall be to propose an effective transcoding and encoding solution that involves converting video and audio files into multiple formats and compressing the same to reduce their size without significant loss in quality.

Transcoding and encoding are crucial for adaptive bitrate streaming, where the video quality adjusts dynamically based on the viewer's network conditions.

Detailed specifications of these components are as follows:

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
1	**Live**	• Provide real time software based transcoding		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
	Transcoding	system for OTT delivery		
		• Support bandwidth efficient content compression for delivery to managed network, Mobile and Internet.		
		• Support the following input streams:		
		• SDI/HDMI/IP		
		• Unicast/Multicast		
		• HLS		
		• SRT		
		• RTMP		
		• Provide following Video processing:		
		• Key frame alignment		
		• Resolution changes		
		• De-interlacing. (Motion Adaptive Interpolation and Blend)		
		• Static Graphic/Logo Overlay (Multiple image overlays)		
		• Adaptive / fixed GOP structure & size		
		• Scene change detection		
		• Support following output Video specifications:		
		• H.265 / HEVC		
		• H.264 / MPEG-4 AVC		
		• AV1		
		• HD / SD / LD video resolutions.		
		• Multi profile video resolutions for 4K, HD		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		and SD sources		
		• Up to High Profile Level 4.1 for HD & SD sources		
		• Main 10 Level 5.1 for 4K sources		
		• Support for 4:2:0 video sampling		
		• PAL video format support		
		• 4:3 and 16:9 video aspect ratio		
		• 150kbps to 25 Mbps video encoding bitrate for profiles		
		• CBR, Capped VBR, VBR encoding rate control support		
		• Support the following output Audio specifications:		
		• Multi-bitrate transcoding based on the output profile		
		• Up to 4 stereo audio channels for single profile (Multi audio output) 32, 48, 64, 80, 96, 112, 128, 160, 192, 224, 256, 384, 512 Kbps		
		• Audio encoding Formats:		
		• AAC-LC		
		• HE-AAC		
		• Opus		
		• Dolby Digital (AC-3) Pass-through		
		• Dolby Digital Plus (EAC-3) Pass-through		
		• Dolby Digital E Pass-through		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks

		• Provide the following Audio Output Codecs as purchasable options:
		
		    • Dolby Digital (AC-3)
		
		    • Dolby Digital Plus (EAC-3)
		
		• Provide the following caption/subtitle outputs:
		
		    • TTML
		
		    • WebVTT
		
		• Provide the following output container formats:
		
		    • MPEG2 transport stream encapsulation.
		
		    • Fragmented MP4 (fMP4) stream encapsulation
		
		• Able to output compliant with following technologies:
		
		    • Common Media Application Format (CMAF)
		
		    • Apple HTTP Adaptive Streaming (HLS)
		
		    • MPEG DASH (ISOBMFF) for Dynamic Adaptive Streaming over HTTP
		
		    • MPEG-2 Transport Streams (MPEG-TS)
		
		• Provide a Web-based user interface
		
		• Transcoders shall have built in I/O modules AV INPUT / OUTPUT interfaces within the equipment.
		
		• Transcoder shall offer high availability, reliability and robustness.
		
		• Maximum delay of proposed transcoding		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		solution shall be less than 2 Seconds. • The Real-time transcoder shall be set up in high availability environment with automatic / manual failover • The Real-time encoder shall have redundant Gigabit Ethernet ports. • Proposed transcoding solution shall provide following Features: • Audio Level Adjustment • Burned-In Timecode and Captions • Caption Extraction and Pass-through • SCTE-35 Support		
2	**Standard Requirements**	• The proposed solution shall support ABR streaming technologies; • MPEG-DASH 2nd Edition Specification as per ISO/IEC 23009) • Apple HTTP Live Streaming (HLS) • Common Media Application Format (CMAF) • The proposed solution shall be able to support at least five profiles starting from 128kbps for resolution from 128K to 4K resolution with configurable size of 64kbps granularity for a single video stream • The proposed solution shall support; • H.264 aka MPEG-4 Part 10 'Advanced Video Coding' (AVC) as per ITU-T H.264		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		and ISO/IEC 14496-10 • H.265 aka HEVC as per ITU-T H.265 and ISO/IEC 23008-2 • AOMedia Video 1 (AV1) • Seamless adoption of future audio-video coding techniques • The proposed solution shall support Video Multi-Ad Playlist (VMAP) for the integration with 3rd party Ad server		
3	**Feature requirements**	• All media content of the proposed solution shall support up to: • Radio Streaming 128K • Standard Definition (SD) 576i/50 • High Definition (HD) 1080p/60 • Ultra HD/4K p60 • Solution shall be designed in such a way that there is no single point of failure. • Encoding/transcoding solution shall support bandwidth efficient content compression for delivery to Television, Mobile and Internet. • Transcoding solution shall be based on reliable architecture creating highly available transcoding farm with automatic failover and redundant job schedulers. • Proposed transcoding solution shall provide following configuration and management features:		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks

		• Batch encoding manager
		
		• One-click encoding with presets
		
		• Watch folder drop-in directory for tasks such as workflow integration, job queuing, scheduling, and prioritization.
		
		• Transcoding solution shall provide the following system control interfaces;
		
		   • Web-based user interface
		
		   • System resource and statistics monitoring
		
		   • Multi-tiered User Authentication
		
		   • Integrated CDN support: Basic PUT, POST
		
		• Transcoding solution shall provide support for following source media containers:
		
		   • .MP4, .TS, .3GP, .AVI, .M2TS, .MKV, .MOV, .MPEG (.MPG), .VOB, .WEBM, .WMV, .MXF, .HLS. , DASH, SRT, .RTMP
		
		   • Discrete audio and caption inputs, .WAV, .AIFF, MP4, AC3/EAC3
		
		• Transcoding solution shall provide support for following source video codecs: HEVC / H.265, AVC / H.264, AV1, VP9, MPEG-2
		
		• Transcoding solution shall provide support for following source audio codecs but not limited to: AC-3 (Dolby Digital), AAC (LC, LD, HEv1, HEv2), MPEG-1 L2, MPEG-1 L3, MPEG-2 L2
		
		• Transcoding solution shall provide following input features:		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks

		• Audio only processing
		
		• Audio PID tracking
		
		• Audio language tracking
		
		• Static image overlays
		
		• Transcoding solution shall provide following multichannel audio input capabilities;
		
		  • Unlimited audio tracks
		
		  • Multichannel track assignments and gains per input
		
		• Transcoding solution shall provide following Video processing features:
		
		  • Adaptive Quantization
		
		  • Anti-Aliasing Scaling for reducing distortion artifacts when downscaling
		
		  • ABR, CBR, CQ, VBR, Quality-Defined Variable Bitrate (QVBR), Two-Pass Encoding Modes
		
		  • Colour Correction
		
		  • Cropping (per input and output)
		
		  • Deblocking
		
		  • Deinterlacing (Motion Adaptive Interpolation and Blend)
		
		  • Dithering (Pseudo-random dynamic rounding) for 16-bit Down-Conversions
		
		  • Frame Rate Interpolation
		
		  • HDR 10 Support		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks

		• Lanczos Scaling
		
		• Linear Scaling
		
		• Look Ahead Rate Control
		
		• Minimum I-frame Interval
		
		• Static Graphics Overlay (Multiple image overlays (BMP, PNG or TGA format), SDR or HDR, Image overlay application to a single input, a single output, or globally, z-order and opacity control)
		
		• Rec.2020 Colour
		
		• Noise Reduction (Bilateral, Mean, Gaussian, Lanczos, Sharpen, Conserve)
		
		• RGB to YUV Conversion
		
		• Scene Change Detection
		
		• Variable GOP Support
		
		• Transcoding solution shall provide following File output containers:
		
		  • MPEG-4 Part 10 (MP4)
		
		  • Fragmented MP4 (fMP4)
		
		  • MPEG Transport Stream (TS)
		
		  • Audio only files for audio applications
		
		• Transcoding solution shall provide following Streaming Output Formats:
		
		  • Common Media Application Format (CMAF)
		
		  • Apple HTTP Adaptive Streaming (HLS)		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks

		• MPEG DASH (ISOBMFF) for Dynamic Adaptive Streaming over HTTP
		
		• Single Program Transport Streams (SPTS)
		
		• Transcoding solution shall provide caption/subtitle processing features.
		
		• Transcoding solution shall provide following Video Output Codecs;
		
		   • HEVC / H.265 (Main, Main 10 up to 4:4:4, Main 12 up to 4:4:4)
		
		   • AVC / H.264 (Baseline, Main up to 4:4:4, High up to 4:4:4)
		
		• Transcoding solution shall provide following Audio Output Codecs:
		
		   • AAC-LC
		
		   • Dolby Digital (AC-3) Pass-through
		
		   • Dolby Digital Plus (EAC-3) Pass-through
		
		   • Audio only support
		
		• Transcoding solution shall provide following Audio Output Codecs as purchasable options:
		
		   • Dolby Digital (AC-3)
		
		   • Dolby Digital Plus (EAC-3)
		
		• Transcoding solution shall provide Multichannel Audio Output capabilities with Unlimited audio tracks.
		
		• Transcoding solution shall provide following features:		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		• 4K Ultra HD Output		
		• Audio Level Adjustment		
		• Audio Only Encoding		
		• Multiple Audio Tracks (SAP)		
		• SCTE-35 Support		

1.1.5. Content Security and DRM (Digital Rights Management)

The scope of this project shall be to propose an effective DRM technology which will be used to protect the intellectual property rights of the content owners and prevent unauthorized access or distribution of the content. The DRM solution should involve encryption, licensing, and authentication mechanisms to secure the content throughout the streaming process.

Detailed specifications of these components are as follows:

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
1	**Standard Requirements**	• Provides interface to all leading live, on-demand and dynamic content packaging tools • Provides seamless Multi-DRM sing CMAF encrypted format with industry grade protection of audio and video • 100% standards-based multi-DRM security • The Digital Right Management (DRM) solution shall be a highly scalable and reliable solution. • The solution shall be globally accepted by known content providers such as HBO, SONY, CNN, ESPN, Discovery, STAR India, NGC, etc.		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		without any hesitation. Proof of acceptance for the proposed solution from at least any two of the above content providers shall be provided. • The solution shall be providing DRM and content consumption transparency across all networks and all devices. • The Solution shall be an agnostic approach to streaming formats. • Provide Multi DRM support for device specific DRMs such as FairPlay, Widevine, and PlayReady. • Able to integrate with new DRM providers and technologies. • The Solution shall be based on Public Key Interface (PKI) security and trust model • Provide device authentication and streaming encryption. • The Solution shall be delivered from a cloud-based solution.		

2	**Feature requirements**	• Fully enables CMAF & HESP
		
		   • Native CBCS encryption approach
		
		   • Common Media Application Format (CMAF; officially MPEG-A Part 19 or ISO/IEC 23000-19)
		
		   • HESP (High Efficiency Stream Protocol) is an adaptive HTTP based video streaming protocol for video streaming with ultra-low		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks

		latency and optimizing costs
		
		• Compatibility across all modern manifest types
		
		• Platforms Supported
		
		   • IE11 and Edge browsers on Windows
		
		   • Chrome and Firefox browsers on Windows and ChromeOS
		
		   • Browser and apps on Android phones and tablets
		
		   • Browsers and apps on Android TV STBs
		
		   • Chromecast/Google Cast devices
		
		   • Browsers and apps on Apple devices		

3	**Security Requirements**	• Solution shall ensure comprehensive security to provide Confidentiality, Integrity & Availability. • Solution shall conduct vulnerability assessment on all the system components during the implementation phase to ensure secure implementation. • Bidder shall conduct vulnerability assessments on system components semi-annually or during system upgrades or system component changes. • Bidder shall rectify all the identified vulnerabilities during internal and external vulnerability assessments. • The proposed solution shall provide • Subscriber authentication including device		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		authentication		
		• Content security using robust DRM, ACP and DCP		
		• Password security policies		
		• Protocol security using secure protocol for communications		
		• Session management security		
		• Attacks (DDOS, MiM, etc.) prevention		
		• Protection of sensitive data storage and transmission		
		• Security measures in Operating System and Database		
		• System user management		
		• Log management		
		• App security including prevention of App hacking, hijacking, etc.		
		• Mobile clients shall be able to detect rooted or jailbroken devices and restrict content playback/download which is not allowed to be played on such devices or limit the resolution to 320 x 240 at a bit rate not exceeding 300 kbps.		
		• Anti-fraud automation		
		• Support enabling of encryption for all or selected channels and other media contents.		
		• Adapt secure communication between:		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		• OTT client and Platform • Platform and External systems (such as OSS, BSS, SMSC, etc.) • Provide role-based access control for management interfaces. • Provide enforcing password policies (mixed character enforcement, password expiration etc.) on all the management interfaces. • The management interfaces and all the external interfaces shall be secured with SSL certificate authentication system. • Solution shall consist with proper security mechanism (perimeter security, web filtering, IDS, IPS etc.) when interfacing third party systems. Bidder shall clearly describe the security mechanism deployed within the proposed solution. • Solution shall include security mechanism for inter server / service communications (i.e., Internal firewall). • Solution shall maintain proper log management function that records and stores all logs for at least three (3) months to capture all actions carried out by the users (Internal & External). • The log management of the proposed solution shall have the capability to integrate to a higher level SIEM application and/or third-party log management solution for further security analysis.		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		• Solution shall comply the security aspects and minimum standard specifications to protect from OWASP most critical (top 10) web and mobile application security risks		

1.1.6. Advanced Analytics

The scope of this project shall be to identify the user preferences and content usage which is critical to keep the subscribers engaged on the platform. Based on the viewer history and preferences of the user, content allocation and ingestion can be planned in a better way. The analytics should help in understanding user behaviour, content performance, and platform usage which would allow Prasar Bharti to take informed decision for more engaging experience, decision regarding content acquisition, marketing strategies, and platform improvements. The analytic tools should gather data on viewing patterns, engagement metrics, and user demographics.

Detailed specifications of these components are as follows:

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
1	**Standard Requirement s**	• The solution shall provide an extensive monitoring and reporting solution for OTT platforms which proactively collects/extracts statistics on operational data, health, performance data, service subscriptions and usage information. • The solution shall fulfill reporting requirements for all the OTT clients across all the user devices with relevant segregations.		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks

		• The proposed solution shall provide
		
		  • Real-time monitoring on resource and service performance KPIs
		
		  • Dashboards view of resource and service performance KPIs
		
		  • Offline reports – scheduled and customized report generation
		
		  • Capability of analyzing trends and generating forecast reports
		
		  • Role-based access for the reporting module
		
		• The proposed solution shall have the capability of
		
		  • Grouping
		
		  • Filtering
		
		  • Scheduling
		
		  • Backdating
		
		  • Getting summary or detail reports, if applicable
		
		• Solution shall have a web-based GUI that supports generation of reports accessing real-time and past data for OTT service deliveries to make informed decisions about user base, content and monetization ways.
		
		• The report module shall have customizable dashboard views and reports, which shall be available in numerical and graphical user		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		configurable formats.		
		• Bidder shall provide the list of reports that are currently available with the solution.		
		• The solution shall have the capability to download and save reports in PDF, HTML, MS Doc/excel, csv, etc. formats.		
		• The solution shall provide reports for national PoPs which shall be visualized in geographical maps.		
		• The solution shall be able to provide raw data (subscribers, statistics, etc.) to a 3rd party analytic solution.		
		• The solution shall provide Customer detail reports:		
		• With the attributes of name, username, address, connected devices, purchased services, etc.		
		• Customer Purchase information		
		• Snapshot of total billable subscriptions (Basic/Channel/SVOD Packages)		
		• The solution shall provide other detail reports:		
		• Total subscriber base including terminations		
		• Customer wise viewership history – For a particular customer, viewership history of Live TV, TSTV, VOD and SVOD		
		• Content wise viewership reports capturing total minutes viewed on a daily basis,		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		aggregated to defined periods. Aim is to define revenue share percentages for content providers based on watched minutes. • Daily content streaming reports		
2	**Video Analytics:**	• Analyze the most important Quality of Service KPIs with real time visibility • Detect and diagnose errors and users affected and troubleshoot issues or weak points in real-time • Automated alerting system to detect service issues and pinpoint root causes • Create custom reports based on your needs and set up the frequency, format and preferred notification channel • Specialized tools to isolate issues and correlate multiple data sets		
3.	**APP Analytics:**	• Gain contextualized visibility on user interaction with app components before and after video playback • Create funnels to understand user journey between touch points • Identify in-app errors and quality issues occurrence by device • Pinpoint errors generating app-crashes and poor loading times • Deep dive into users individual sessions by user		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		ID or IP		

1.1.7. Integration and Interoperability

The scope of this project shall be make available various Application Programming Interfaces (APIs) to enable integration with third-party services such as Payment gateways, games, educational series in universities, etc and devices, such as smart TVs, mobile apps, and content recommendation engines.

Payment gateway integration allows users to make secure online payments, manage auto subscription fee payments, and handle billing-related processes. Depending upon the subscription model identified by Prasar Bharti, this payment gateway would enable the users to pay the subscription fees. Managing the subscription and payments made by the user, a secure and robust payment gateway platform needs to be developed.

OTT platform should expose APIs to allow developers to build applications that can access and interact with platform features and content.

Detailed specifications of these components are as follows:

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks

1	**Integration requirements**	• The proposed solution shall facilitate prepaid scenarios:
		
		  • Integration with the payment gateways, such as Razor Pay, etc.
		
		  • Support both account level and product level prepaid scenarios.		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks

		• Support voucher-based payment scenarios.
		
		 • Support online payments via Credit cards & online payment modes such as PayPal, Razor Pay etc.
		
		 • Provide strong audit trails for prepaid payment scenarios referring to the relevant transactions (Ex: Online transactions).
		
		 • A secure communication channel (a secure site-to-site VPN tunnel) shall be established between Prasar Bharti IT Datacenter and the datacenter where the application is hosted.
		
		 • Integrate with the below to facilitate push notifications,
		
		    • Apple Push Notification
		
		    • Google Push Notification
		
		    • Browser Push Notification
		
		 • The proposed solution shall provide provision for the integration with Prasar Bharti self-care portal / apps (e.g.: subscriber provisioning and product purchasing). API details shall be clearly stated in the proposal.
		
		 • The MAM system shall provide a REST API, B2B based on well-known standards that third party applications will be able to consume.
		
		    • Access to the API shall be based on user / login.
		
		    • The API documentation shall be available		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		online.		
		• The OTT Platform shall provide rich Application Programming Interfaces (API) which enable third-party application developments accessing platform services.		
		• The solution shall be open standard based and future proof solution which enable interoperability between third party vendor solutions (API interfaces, etc.) and evolve with latest industry trends and standards.		
2	**Data Migration & Integration requirements for MAM**	Prasar Bharti has a lot of media /content in the form of Audio and Video assets available at its media libraries across regions. These libraries have media content in the form of legacy tapes, digital tapes, Digital file formats, etc. Some of the libraries has been equipped with stand-alone MAM systems, wherein the data (media content along with its metadata) is available on SAN & LTOs. Under the scope of this RFP, data available at MAM Systems deployed at the regions has to be migrated by the bidder to the new proposed cloud-based MAM system after the appropriate quality check/pre audit.		
		• The bidder shall conform following specifications after deploying, customizing and configuring the MAM system on cloud as per Prasar Bharti requirement regarding migration of existing data on to the cloud hosted system:		
		• Submit plan/schedule for migration of data		

Sr. No	Parameter	Detail	Compliance Yes / No	Remarks
		along with the technical bid.		
		• Support bulk data migration for quick and efficient transport of data on to the cloud.		
		• During migration of data, the supplier shall provide adequate manpower and technical support to complete the work within stipulated time period.		
		• Metadata fields of existing MAM system has to be matched perfectly with the MAM system provided on the cloud. Additional fields on the metadata schema may be created on the cloud hosted system, if required in order to ensure complete liberation of metadata in respect of Media assets.		
		• Provide data migration tools for the Media Content available in Hard disk drives (HDDs). Prasar Bharti will provide the Media in file format along with Metadata in Excel, and XML format for the purpose.		
		• The cloud-based MAM system shall migrate/ingest the metadata, Low resolution copy, High resolution Video file stored on a Storage and LTO tape Library.		
		• Prasar Bharti shall facilitate all the necessary support in extraction of data from proprietary system/formats. Data migration, validation, and integrity check will be joint responsibility of Prasar Bharti		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		and the bidder. • After the completion/termination of contract period, the complete data to be handed over to Prasar Bharti in Open standard format in some other cloud / on-premises Storage.		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks

1	**Integration requirements**	• The proposed solution shall facilitate prepaid scenarios:
		
		  • Integration with the payment gateways, such as BillDesk, Bill Junction, Razor Pay, etc or similar
		
		  • Support both account level and product level prepaid scenarios.
		
		  • Support voucher-based payment scenarios.
		
		  • Support online payments via Credit cards & online payment modes such as PayPal, Razor Pay etc.
		
		• Provide strong audit trails for prepaid payment scenarios referring to the relevant transactions (Ex: Online transactions).
		
		• A secure communication channel (a secure site-to-site VPN tunnel) shall be established between Prasar Bharti IT Datacenter and the datacenter		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		where the application is hosted.		
		• Integrate with the below to facilitate push notifications,		
		• Apple Push Notification		
		• Google Push Notification		
		• Browser Push Notification		
		• The proposed solution shall provide provision for the integration with Prasar Bharti self-care portal / apps (e.g.: subscriber provisioning and product purchasing). API details shall be clearly stated in the proposal.		
		• The MAM system shall provide a REST API, B2B based on well-known standards that third party applications will be able to consume.		
		• Access to the API shall be based on user / login.		
		• The API documentation shall be available online.		
		• The OTT Platform shall provide rich Application Programming Interfaces (API) which enable third-party application developments accessing platform services.		
		• The solution shall be open standard based and future proof solution which enable interoperability between third party vendor solutions (API interfaces, etc.) and evolve with latest industry trends and standards.		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
2	**Data Migration & Integration requirements for MAM**	Prasar Bharti has a lot of media /content in the form of Audio and Video assets available at its media libraries across regions. These libraries have media content in the form of legacy tapes, digital tapes, Digital file formats, etc. Some of the libraries has been equipped with stand-alone MAM systems, wherein the data (media content along with its metadata) is available on SAN & LTOs. Under the scope of this RFP, data available at MAM Systems deployed at the regions has to be migrated by the bidder to the new proposed cloud-based MAM system after the appropriate quality check/pre audit. • The bidder shall conform following specifications after deploying, customizing and configuring the MAM system on cloud as per Prasar Bharti requirement regarding migration of existing data on to the cloud hosted system: • Submit plan/schedule for migration of data along with the technical bid. • Support bulk data migration for quick and efficient transport of data on to the cloud. • During migration of data, the supplier shall provide adequate manpower and technical support to complete the work within stipulated time period. • Metadata fields of existing MAM system has to be matched perfectly with the MAM system provided on the cloud. Additional fields on the metadata schema may be		

Sr. No	Parameter	Detail	Complianc e Yes / No	Remarks
		created on the cloud hosted system, if required in order to ensure complete liberation of metadata in respect of Media assets. • Provide data migration tools for the Media Content available in Hard disk drives (HDDs). Prasar Bharti will provide the Media in file format along with Metadata in Excel, and XML format for the purpose. • The cloud-based MAM system shall migrate/ingest the metadata, Low resolution copy, High resolution Video file stored on a Storage and LTO tape Library. • Prasar Bharti shall facilitate all the necessary support in extraction of data from proprietary system/formats. Data migration, validation, and integrity check will be joint responsibility of Prasar Bharti and the bidder. • After the completion/termination of contract period, the complete data to be handed over to Prasar Bharti in Open standard format in some other cloud / on-premises Storage.		

1.1.8. Support and SLA

The Bidder shall be responsible for providing 24*7*365 days support for Cloud infrastructure for the tenure of the contract from the date of issuance of acceptance by customer.

The maintenance will include compliance process to the defined international standards and security guidelines. Further customer Security policies and procedures if any that needs to be considered and included in the scope of work

The main bidder or cloud service provider shall ensuring Uptime and utilization of the cloud resources as per SLA's defined in this RFP.

The Bidder shall provision monitoring tools for measuring the service levels, application performance and utilization, server performance and utilization, storage performance and utilization and network performance and utilization. The tool shall be capable of providing the exact utilization of servers and shall be able to generate per day, per month and per quarter. utilization reports based on which the payments will be made to the Bidder.

The Bidder shall provide system monitoring tool for best users to monitor the following:

- o System response
- o Database response
- o Connectivity
- o Live / active user status
- o CDN usage status
- o Any other components

Upgrades - Any required Version/Software /Hardware upgrades, patch management etc. at the Cloud Site will be supported by the Bidder for the entire contract period at no extra cost to be payable by customer.

On expiration / termination of the contract, Bidder to handover complete data in the desired format to customer which can be easily accessible and retrievable also handhold for transition to customer or new provider.

Bidder shall conduct Mock drills for DR testing or simulation at least in every six months interval.

MIS Reports - Bidder shall submit the reports on a regular basis in a mutually decided format.

The Bidder shall workout the formats for the MIS reports and get these approved by the customer after awarded the contract. The following is only an indicative list of reports that may be submitted to the customer:

- Weekly
- Monthly

- Quarterly

- Annual improvements and suggestions

                       ****

1015967/2023/Platforms/DD Free Dish - PBS

#	Usage based Charge Header	Unit of Measurement	Unit Monthly Recurring Charges	Estimated Annual Recurring Charges Y1	Estimated Annual Recurring Charges Y2	Estimated Annual Recurring Charges Y3	Estimated Annual Recurring Charges Y4	Estimated Annual Recurring Charges Y5
1	OTT platform (service includes: Hardware, Middleware, Integration, Support, DC hosting, cyber security, content security) : No. of active subscribers			50,00,000	57,50,000	66,12,500	76,04,375	87,45,031
1a		per active subscriber		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
2	No. of Live TV Channels					50		
2a		per live TV channel		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
3	No. of OTT FAST Channels					30		
3a		per FAST Channel		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
4	No. of Customized Apps Supported (E.g.: Android, iOS, Google / MI / Apple / Samsung / LG / Similar TV OS, etc.)					10		
4a		per App		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
5	Advance analytics : No. of plays in '000 per month			1,20,000	1,38,000	1,58,700	1,82,505	2,09,881
5a		Per 1000 plays		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
6	Content delivery network (CDN) : TB of data transfer on CDNs per month			7,426	8,540	9,821	11,294	12,988
6a		Per TB		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
7	Content delivery network (CDN) : TB of data storage on CDNs per month			512	589	677	779	895
7a		Per TB		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
8	Ad serving : No. of ads stitched/ served in '000 per month					1000		
8a		per '000 ads		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
9	Digital Rights Management (DRM) : No. of plays in '000 per month			1,20,000	1,38,000	1,58,700	1,82,505	2,09,881
9a		Per 1000 plays		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0

1015967/2023/Platforms/DD Free Dish - PBS

10	Transcoding (No. of Hours in a month)			66,500	69,825	73,316	76,982	80,831
10a		*Per hour*		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
11	Media Asset Management platform (service includes: application licensing, compute hardware, Integration, Support, DC hosting, cyber security, content security) : No. of MAM user accounts			50	60	70	80	100
11a		*per MAM user account*		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
12	Content storage for MAM : TB of storage			1,024	1,178	1,354	1,557	1,791
12a		*Per TB*		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
13	Professional services (API integration, customisation Etc.) : man hours per month			1,500	1,200	900	600	600
13a		*per manhour*		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
14	Content conversion (from tapes to Disk), central migration and consolidation	Per TB		493	0	0	0	0
14a		*per TB*		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
15	P2P / Internet connectivity at Data Centres to connect to Studios and CDNs (Ingress + Egress) : data transfer in TB per month			7,426	8,540	9,821	11,294	12,988
15a		Per TB		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
16	24x7 Help Desk & Premium Support with 8 language support and at least 20 seater			20	20	20	20	20
16a		*per month*		₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
	GRAND TOTAL			₹ 0	₹ 0	₹ 0	₹ 0	₹ 0
	Per Subscriber Monthly Cost			-	-	-	-	-

17	One time cost payable (as per the payment terms of the RFP)		

Note

1. Rates mentioned shall be exclusive of GST
2. Bidders to ONLY fill in unit rates in Green cells i.e. 1a, 2a, 3a, 4a, 5a, 6a, 7a, 8a, 9a, 10a, 11a,
3. Per Subscriber Monthly Cost thus arrived shall be used to pay for only active user. Active user per
4. For serial number 17, one time cost payable cannot be negative number or 0 and bidder doing so
a. Development cost
b. Operational cost
c. Other cost, please specify
5. The selected bidder (H1) has to match the One Time Cost and Lowest Per Subscriber Monthly
6. The commercial value that shall be considered for evaluation and selection purpose will be
a. Final Bid Price for the bidder = One time cost divided by 67,42,381 (average subscribers for year 1
b. The bidder with Commercial Quote that is less than or higher than 20% of the median of Final Bid