



CSIR-Central Food Technological Research Institute  
Mysuru– 570 020, Karnataka, India  
Tel #: 00 91 821 2515440/5447  
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Website: [www.cftri.res.in](http://www.cftri.res.in)

**Tender Enquiry No. CFTRI/74268/25-26**

**Date:04/12/2025**

**Tender Enquiry Document (Post PBC)  
For  
Supply, Installation & Commissioning of  
Server & IP Phone (IP-PBX)**

### Invitation for e-Bids / Notice Inviting e-Tender

CSIR- Central Food Technological Research Institute, Mysore, India, is one of the premier institutes under the aegis of Council of Scientific and Industrial Research, an autonomous body of the Department of Scientific and Industrial Research (Government of India), New Delhi. CSIR-CFTRI is a Science and knowledge-based Research & Development (R&D) Organization. It is internationally known for its excellence in Scientific Research in Food Science & Technology.

The Director, CSIR-CFTRI invites e-bids from the Manufacturers or their authorized distributors, if any, for purchase of the following Goods/Services:

Sl. No	Detailed specification of the stores(item)	Qty	Tender No.	Type of Bid	Mode of Procurement
1	Supply of enterprise grade server on HA and Installation, IP-based Private Branch Exchange (IP-PBX) Software (VOIP), Testing and Commissioning, on Linux operating system, Warranty (05 Years onsite warranty with OEM Support)	2 Nos	CFTRI/74268 /25-26	Single Stage Two Bid	Open Tender
2	2-Port SIP Gateway - Supports maximum 60 concurrent calls on BSNL lines Expandable by adding additional hardware	1No			
3	Basic IP Phone with PoE support & IEEE 802.1X (2 Year warranty)	450 Nos			
4	Premium IP Phone with PoE support & IEEE 802.1X (2 Year warranty)	40 Nos			
5	Operator Console IP Phone with PoE support & IEEE 802.1X (2 Year warranty)	1 No			
6	Power Adapter for IP Phones (1 Year warranty)	50 Nos			
7	32 port FXS Gateway (MDF crone connectivity for 32 Analog extensions) 10 pair krone module Krone Box to support 40-krone modules	01 No 08 Nos 02 Nos			
8	<div>a. laying 4-pair UTP/Copper/STP (Cat6) outdoor cable using 1inch casing and capping, terminating Cat6 outlets, and fixing face plates and back boxes. 1. I/O Boxes/face plate 2. 1-Meter CAT 6 patch cable (Make: D-Link/Molex/DIGILINK)</div> <div>b. Digging of soft/hard soil manual Digging and back filling of the trench with soil, levelling (2feet Depth), fixing of OFC route markers (15 Nos) and laying of 6Core Outdoor OFC Single Mode (inside HDPE pipe) including splicing, fixing of LIU and OTDR testing and required accessories.</div> <div>c. 8-Port PoE+ Gigabit managed switch with 10G SFP+ uplink module, including installation and configuration. (HP/CISCO/Quantum brands only)</div> <div>d. 1G Fibre Gigabit Modules</div> <div>e. Fibre patch cord LC-LC</div> <div><b>Note:</b> Final payment towards the cabling work will be made according to the actual work executed and thus bidders are requested to upload a detailed price breakup in PDF, mentioning the price of each item separately. (The Technical specifications, allied requirements and scope of supply are given in Chapter 4)</div>	1000 Meters  40 Nos 200 Nos  1500 Meters  4 Nos  4 Nos 10 Nos			

1. (a) Only Local Suppliers with prescribed local content as detailed in DPIIT (Ministry of Commerce and Industry, GoI) Order No. P45021/2/2017-PP(BEII)-Part(4)Vol.II dated 19/07/2024, amended from time to time, are eligible for bidding. Bidders must enclose the certificate declaring the local content of supplies as per the format.  
(b) The Tender Enquiry Document can be downloaded from the Government e-Marketplace (GeM) Portal i.e. <https://gem.gov.in>. The submission of e-Bids shall be only through the GeM portal. Bids will not be accepted in any other form.
2. Interested Bidders may obtain further information from the office of:  
  
 Controller of Stores & Purchase  
 CSIR- Central Food Technological Research Institute  
 Mysuru– 570 020, Karnataka, India  
 Tel #: 00 91 821 2515440/5447  
 Email: [cosp.cftri@csir.res.in](mailto:cosp.cftri@csir.res.in)  
 Website: [www.cftri.res.in](http://www.cftri.res.in)
3. The prospective bidders should adhere to the deadlines specified in the Tender Enquiry Document / corresponding NIT on GeM portal.
4. (a) A Pre-Bid Conference (PBC) will be held as mentioned below

Pre-Bid Conference	<b>Pre Bid Conference (PBC) was held on 02-12-2025 at 2.00 pm at CSIR-CFTRI, Mysore (By person/Online)</b>
<del>Bidders desirous of attending Pre-bid meeting are required to provide the following details:-</del> <del>1. Prospective Bidders Name &amp; address</del> <del>2. Name, designation &amp; mobile number of the representative (s) attending the meeting.</del> <del>3. E-mail ID to which the meeting invitation to be sent in case of online meeting preference</del> <del>4. Pre-bid queries, if any.</del> <del>The above information should be sent by e-mail to <a href="mailto:cosp.cftri@csir.res.in">cosp.cftri@csir.res.in</a> / <a href="mailto:spo.cftri@csir.res.in">spo.cftri@csir.res.in</a> / <a href="mailto:sosp.cftri@csir.res.in">sosp.cftri@csir.res.in</a> on or before 2.00pm of 01-12-2025</del>	

- (b) No Queries, suggestions or representation made after the PBC will be entertained. Changes incorporated to the bidding document subsequent to PBC shall be treated as amendment to the bidding document and has been hosted in the GEM Portal/CFTRI Website [www.cftri.res.in](http://www.cftri.res.in)
- (c) Prospective bidders are requested to take cognizance of the amendments, if any, hosted on CSIR-CFTRI Website and the GeM Portal, before formulating and submitting the bids.
5. The Bid prepared by the Bidder shall include the following:

Bid Securing Declaration (BSD)	
	A bidder has to furnish/submit BID SECURING DECLARATION as per FORMAT specified in Chapter-8
	The Bid Security Declaration in the name of "The Director, CSIR-Central Food Research Institute, Mysore" to be part of the Technical Bid, without which the bid shall be rejected.
OR	
Bid Security (BS) / Earnest Money Deposit (EMD)	
Alternatively, a bidder shall furnish a bid security valid for 45 days beyond the validity of the bid for Rs 2,50,000.00.	

The Bid Security/Earnest Money Deposit shall be deposited through Bank Guarantee/Demand Draft/FDR/ Insurance Surety Bonds (ISB) issued by any scheduled bank in India drawn in favor of "The Director, CSIR-CFTRI, Mysore. The original Bid Security/EMD must be delivered before closure of bid submission date and time to the address: Controller of Stores & Purchase, CSIR- Central Food Technological Research Institute, Mysuru - 570020, Karnataka

6. The Schedule for Submission of e-Bids and Opening of e-Bids is as follows:

Last Date & Time of Submission of e-Bid		Date and Time of Opening of e-Bid	
Date	Time (IST)	Date	Time (IST)
<b>23-12-2025</b>	15:00 Hrs	<b>23-12-2025</b>	15:30 Hrs

7. CSIR-CFTRI is a Public Funded Research Institute under the Department of Scientific & Industrial Research, Government of India, and concessional Custom duty is applicable for the goods purchased for Research purposes vide Government of India Notification No.51/96–Customs dated 23-July-1996, as amended from time to time. **CSIR-CFTRI is not eligible to issue any GST concessional rate certificate. Hence, bidders may submit their bid accordingly.**
8. The bids failing to comply with the following clauses will be summarily rejected.
- The bidders proposing to supply finished products directly/indirectly from Bidders of Countries sharing the land border with India should submit a copy of registration with the Ministry of Home Affairs and the Ministry of External Affairs. under Rule 144(xi) of the GFR 2017 related to restrictions on participation of Foreign Bidders and their Authorized Indian Agent/Dealer in terms of Order No. P-45021/112/2020-PP(BE-II) (E-43780) dated 24-Aug-2020 of the Ministry of Commerce and Industry, Department for Promotion of Industry and Internal Trade, as amended from time to time as on the date of issue of Order
  - If the products supplied are not sourced from Countries sharing a Land border with India, the bidders should enclose a declaration to this effect as per Annexure-L
9. As per the Government of India Public Procurement policies, the purchaser intends to give purchase/price preference to Class-I local supplier and Micro & Small Enterprises for procurement of goods produced and services rendered by them. It is not applicable in the case of trading activities.
10. Bidders are requested to refer to CSIR-CFTRI website **www.cftri.res.in** for required forms and Other General Tender's Terms and Condition which are also an integral part of this tender. [Path: Home Page → Tender → Standard Tender Document (Scrolling Text)]
11. The Director, CSIR-CFTRI, Mysuru, reserves the right to accept or reject any bid or accept all bids either in part or in full or to split the order, or to annul the bidding process without assigning any reasons thereof.

Controller of Stores & Purchase  
For and on behalf of CSIR

**General Instructions to Bidders: -**

01. For participation in GeM e-procurement, all bidders need to register themselves on the GeM Portal (<https://gem.gov.in>). Only enrolled/registered bidders with the said portal shall be allowed to participate in the bidding process.
02. CSIR-CFTRI neither operates nor manages the GeM Portal where online bids are submitted and therefore will not be responsible for any technical issues related to bid submission (viz., not being able to upload bid, blank/missing/part documents etc.,). If bid is incomplete on account of these, it will be treated as such and evaluated further. For any technical queries/issues related to online bid submission, Bidders must directly approach support service of GeM Portal as per the details given on their website.

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## CHAPTER – 1

### INSTRUCTIONS TO BIDDERS

For details kindly refer to Standard Tender Documents uploaded at CSIR-CFTRI website i.e. [www.cftri.res.in](http://www.cftri.res.in) →Tender

## CHAPTER 2

### CONDITIONS OF CONTRACT

#### A. GENERAL CONDITIONS OF CONTRACT (GCC)

Note: The General Conditions of Contract shall form the part of Purchase Order / Contract.

For details kindly refer to Standard Tender Documents uploaded at CSIR-CFTRI website i.e. [www.cftri.res.in](http://www.cftri.res.in) →Tender

#### B. SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

Sl.No.	GCC Clause Ref	Condition
1	GCC 2.1.1(l)	The Purchaser is: The Director CSIR-Central Food Technological Research Institute Mysuru– 570 020, Karnataka, India Tel #: 00 91 821 2515440/5447 Email: <a href="mailto:cosp.cftri@csir.res.in">cosp.cftri@csir.res.in</a> Website: <a href="http://www.cftri.res.in">www.cftri.res.in</a>
2	GCC 2.1.1(m)	The Final Destination is: CSIR-Central Food Technological Research Institute Mysuru– 570 020, Karnataka, India Tel #: 00 91 821 2515440/5447 Email: <a href="mailto:cosp.cftri@csir.res.in">cosp.cftri@csir.res.in</a> Website: <a href="http://www.cftri.res.in">www.cftri.res.in</a>
3	GCC 2.13.1	<b>Performance Security</b> The amount of the Performance Bank Guarantee shall be 5% of the contract value in form of Bank Guarantee(BG) /Demand Draft/Insurance Surety Bonds (ISB)/FDR to be submitted effective from the date of final installation of equipment and its acceptance by end user valid up to 60 days after the date of completion of performance obligations including warranty.
4	GCC 2.16.3	Delivery – Mode of Transportation/Shipment
		a) The mode of transportation shall be by Road.
		b) DELIVERY TERM: FOR CSIR-CFTRI, Mysore
		c) Delivery period (as specified in the Chapter four or six - from the date of acceptance of Purchase Order

5	GCC 2.17.1	Insurance  The terms of delivery shall be FOR (Destination) and Insurance shall be arranged by the supplier on “all risk basis” including strikes, riots and civil commotion till completion of installation and commissioning.												
6	GCC 2.21.3	The Warranty Period for this tender shall be:  The warranty shall remain valid for a period as specified in chapter –IV i.e. specifications and allied technical details. If it is not mentioned in chapter- IV, a minimum one-year warranty from the date of satisfactory installation and acceptance shall be applicable.												
7	GCC 2.22.1	<table><tr><td colspan="2">Payment Terms</td></tr><tr><td colspan="2">The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:</td></tr><tr><td>(a)</td><td>Payment for Goods and Services supplied from within India will be as per GeM portal terms and conditions - 100% on bill basis against supply, installation, commissioning and training  OR</td></tr><tr><td>(b)</td><td>The payment shall be made in Indian Rupees, as follows: (a) After shipment: Seventy percent (70%) of the Contract Price shall be paid on receipt of the Goods in good condition and upon submission of the documents specified in Purchase Order. (b)On Acceptance: The remaining Thirty percent (30%) of The Contract value shall be paid to the Supplier within thirty (30) days after the date of the acceptance certificate Issued by the Purchaser</td></tr><tr><td>(c)</td><td>E-Payment: All payments, CSIR-CFTRI prefers to make Electronic Transfers (NEFT/RTGS) through scheduled bank</td></tr><tr><td>(d)</td><td>All payments due under the Contract shall be paid after deduction of statutory levies at source (like TDS, Income Tax, TCS etc.), wherever applicable.</td></tr></table>	Payment Terms		The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:		(a)	Payment for Goods and Services supplied from within India will be as per GeM portal terms and conditions - 100% on bill basis against supply, installation, commissioning and training  OR	(b)	The payment shall be made in Indian Rupees, as follows: (a) After shipment: Seventy percent (70%) of the Contract Price shall be paid on receipt of the Goods in good condition and upon submission of the documents specified in Purchase Order. (b)On Acceptance: The remaining Thirty percent (30%) of The Contract value shall be paid to the Supplier within thirty (30) days after the date of the acceptance certificate Issued by the Purchaser	(c)	E-Payment: All payments, CSIR-CFTRI prefers to make Electronic Transfers (NEFT/RTGS) through scheduled bank	(d)	All payments due under the Contract shall be paid after deduction of statutory levies at source (like TDS, Income Tax, TCS etc.), wherever applicable.
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8	GCC 2.27.1	<table><tr><td colspan="2">Liquidated Damages (LD)/Penalty</td></tr><tr><td>(a)</td><td>As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to, otherwise will have to forfeit the EMD/PS and also LD clause will be applicable / enforced.</td></tr><tr><td>(b)</td><td>If the Supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay LD/penalty of 0.5% of order value per week of delay in supply/installation subject to maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the Supplier.</td></tr><tr><td>(c)</td><td>CSIR-CFTRI reserves the right to cancel the Purchase Order in case the delay in supply is more than 10 weeks. Penalties, if any, will be deducted from the Performance Security.</td></tr></table>	Liquidated Damages (LD)/Penalty		(a)	As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to, otherwise will have to forfeit the EMD/PS and also LD clause will be applicable / enforced.	(b)	If the Supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay LD/penalty of 0.5% of order value per week of delay in supply/installation subject to maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the Supplier.	(c)	CSIR-CFTRI reserves the right to cancel the Purchase Order in case the delay in supply is more than 10 weeks. Penalties, if any, will be deducted from the Performance Security.				
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(c)	CSIR-CFTRI reserves the right to cancel the Purchase Order in case the delay in supply is more than 10 weeks. Penalties, if any, will be deducted from the Performance Security.													
9	GCC 2.34.1	Applicable Law / Jurisdiction  The place of jurisdiction is Mysuru, India.												
10	GCC 2.35.1	For notices, the Purchaser's address is The Director  Attention: The Controller of Stores & Purchase  CSIR-Central Food Technological Research Institute Mysore– 570 020, Karnataka-India Tel #: 00 91 821 2515440/5447 Email: cosp.cftri@csir.res.in												

### **CHAPTER 3**

(To be filled by the bidder and enclosed with the Technical Bid)

#### **SCHEDULE OF REQUIREMENT**

The Schedule of Requirement must clearly specify the time frame required (Schedule) for delivery of goods and services to be completed by the bidder (in reference to Scope of Supply given in Clause-4.2 of Chapter-4) if the Contract is awarded for the offer / proposal submitted by the bidder in response to this Tender.

**A) Delivery Schedule:**

Sr. No.	Brief Description of Goods and Services	Quantity & Unit	Delivery Schedule

**B) Period of delivery shall start from** : \_\_\_\_\_

**C) Term of Delivery / Delivery Term (named port of shipment or named place of delivery:**

Goods from India	FOR CSIR-CFTRI Mysore
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**D) Scope of Supply:**

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**E) Time frame required for conducting installation, commissioning of the equipment, acceptance test, training, etc. after the arrival of consignment or before dispatch of equipment:**

Sr. No.	Activity	Time Frame
1	Site Preparation (if required)	
2	Installation & Commissioning	
3	Acceptance Test	
4	Training (Location, No. of persons, period of training, nature of training)	
5		

**Place** : \_\_\_\_\_ **Signature of the Bidder** : \_\_\_\_\_

**Date** : \_\_\_\_\_

**Notes for Bidders:**

(1)	The delivery schedule shall clearly indicate the time period within which the successful bidder will deliver the consignment in full from the date of establishment of LC or from the date of acceptance of contract etc. It should also indicate separately the time period desired for installation and commissioning of the equipment after arrival of the consignment at the premises of the Purchaser.
(2)	The date or period for delivery should be carefully specified, taking into account the implications of delivery terms stipulated in the Instructions to Bidders.



## **Chapter 4**

### **Specifications and Allied Technical Details**

#### **Supply, Installation and Commissioning of Server & IP Phone (IP-PBX) (Post PBC)**

##### **4.1 End Use: Research and Development**

#### **Line of Items and revised specifications**

<b>Sl. No</b>	<b>Detailed specification of the stores(item)</b>	<b>Quantity</b>
1	Supply of enterprise grade server on HA and Installation, IP-based Private Branch Exchange (IP-PBX) Software (VOIP), Testing and Commissioning, on Linux operating system, Warranty (05 Years onsite warranty with OEM Support)	2 Nos
2	2-Port SIP Gateway - Supports maximum 60 concurrent calls on BSNL lines Expandable by adding additional hardware	1No
3	Basic IP Phone with PoE support & IEEE 802.1X (2 Year warranty)	450 Nos
4	Premium IP Phone with PoE support & IEEE 802.1X (2 Year warranty)	40 Nos
5	Operator Console IP Phone with PoE support & IEEE 802.1X (2 Year warranty)	1 No
6	Power Adapter for IP Phones (1 Year warranty)	50 Nos
7	32 port FXS Gateway (MDF crone connectivity for 32 Analog extensions) 10 pair krone module Krone Box to support 40-krone modules	01 No 08 Nos 02 Nos
8	<p>a. laying 4-pair UTP/Copper/STP (Cat6) outdoor cable using 1inch casing and capping, terminating Cat6 outlets, and fixing face plates and back boxes.</p> <p>1. I/O Boxes/face plate</p> <p>2. 1-Meter CAT 6 patch cable (Make: D-Link/Molex/DIGILINK)</p> <p>b. Digging of soft/hard soil manual Digging and back filling of the trench with soil, levelling (2feet Depth), fixing of OFC route markers (15 Nos) and laying of 6Core Outdoor OFC Single Mode (inside HDPE pipe) including splicing, fixing of LIU and OTDR testing and required accessories.</p> <p>c. 8-Port PoE+ Gigabit managed switch with 10G SFP+ uplink module, including installation and configuration. (HP/CISCO/Quantum brands only)</p> <p>d. 1G Fibre Gigabit Modules</p> <p>e. Fibre patch cord LC-LC</p> <p><b>Note:</b> Final payment towards the cabling work will be made according to the actual work executed.</p>	1000 Meters  40 Nos 200 Nos  1500 Meters  4 Nos  4 Nos 10 Nos

## Detailed Specifications

Technical Parameters	Technical Description
<b><u>SCOPE:</u></b>	<ul style="list-style-type: none"> <li>Supply, Installation, Integration, Testing and Commissioning, of IP-based Private Branch Exchange (IP-PBX) with Server-Gateway as per the specification given below on turnkey basis.</li> <li>Technician should be deployed on-site until successful installation, commission &amp; training.</li> <li>The OEM/Bidder should provide 24/7 support engineer availability in Mysore.</li> <li>All required licenses should be perpetual and to support up to 3000 IP phones, including redundancy/high-availability server support</li> </ul>
<b>ADVANCED VOIP COMMUNICATION IP PBX SYSTEM BASED ON SERVER GATEWAY</b>	<ul style="list-style-type: none"> <li>The IP based PBX must be IP @ Core switching and based on Server Gateway Architecture.</li> <li>The Systems should be 2U rack-mountable with generic hardware. Preferred Brand (Dell/HP only)</li> <li>ISDN based EPABX System with Optional IP shall not be acceptable.</li> </ul>
<b>SYSTEM ARCHITECTURE &amp; CONFIGURATION</b>	<ul style="list-style-type: none"> <li>The Architecture must support Unified Communication based Servers and Gateways.</li> <li>It must support Open SIP for Trunks and Extensions and also Analog Trunks and Extensions thru FXO/FXS and PRI gateways etc.</li> <li>The system should be able to upgrade up to 3000 or more extension licenses.</li> <li>The voice network architecture and call control function shall be SIP based.</li> <li>The system must be capable of supporting Analog, IP Telephones, and SIP based video desk phones.</li> <li>The IP telephony system must support unified communication (UC) server &amp; gateways architecture for SIP, PRI and Analog trunks connectivity.</li> </ul>
	<ul style="list-style-type: none"> <li>The Server must be HP/Dell make only.</li> <li>The Call Communication Servers must work in Active-Active/Active-Standby and real time Hot Redundancy Mode</li> <li>This means if Primary Server fails the Secondary Server without manual intervention takes over without disconnection of On-Going Calls</li> <li>Real time Data replication must be possible in both the Servers.</li> <li>Each Single Server must be able to support at least 50-1500 Ports in any combination of Analog Trunks &amp; Extensions and/or IP Trunks and IP Extensions</li> </ul>
	<ul style="list-style-type: none"> <li>The System must support SIP based IP Phones (Hard &amp; Soft IP Phones) and also IP Video Phones (Hard and Soft Video Phones)</li> </ul>
	<ul style="list-style-type: none"> <li>The IP PBX System must be able to register SIP Phones/ SIP Video Phones directly.</li> </ul>
	<ul style="list-style-type: none"> <li>The IP PBX must support Geographically Distributed architecture for the same subnet of the network.</li> </ul>
	<ul style="list-style-type: none"> <li>The Gateways solution will be licensed and equipped to support analog extensions.</li> <li>The media gateway must have a minimum capacity of 16 lines or higher capacity on a single chassis/cabinet.</li> </ul>
	<ul style="list-style-type: none"> <li>The IP based EPABX system shall be designed with IP at the core and shall be built on IP (LAN/WAN) network, seamlessly &amp;</li> </ul>

	securely interconnecting its Core Server(s), Media-Gateway(s) and EPABX System Programming & Management platform(s).
	<ul style="list-style-type: none"> <li>• Voice Solution shall be converged with support of Unified Communication – IP Telephony, Video Telephony &amp; Analogue Stations. It shall be possible to make Video calls.</li> </ul>
	<ul style="list-style-type: none"> <li>• The Offered system shall meet all the relevant ITU-T recommendations.</li> </ul>
	<ul style="list-style-type: none"> <li>• It should be designed and built to operate reliably and efficiently and with all the components rated for continuous operation and run on industry standard ratings/protocols.</li> </ul>
	<ul style="list-style-type: none"> <li>• The servers should be deployed in a duplicated hot stand-by configuration over the distributed IP infrastructure (LAN/WAN). It should support 1+1/1+N redundancy.</li> </ul>
	<ul style="list-style-type: none"> <li>• All Server Software Applications of IP based EPABX system shall reside &amp; run on hot Stand-by configuration. The standby Server should always be in sync (database) with the active / master Server without any need of manual configuration &amp; administration. It should also conform to the model of complete "mirroring" of the information (both static and dynamic data) as used in most computer systems.</li> </ul>
	<ul style="list-style-type: none"> <li>• If the architecture involves Active-Active or Active-Standby servers, it shall ensure high availability and prevent performance degradation in the event of a server failure.</li> </ul>
	<ul style="list-style-type: none"> <li>• The system shall work as a unified (single) system with a unified numbering plan, centralized operation and management.</li> </ul>
	<ul style="list-style-type: none"> <li>• The offered servers should employ an open-ended communication platform. The platform shall be expandable with new systems or applications.</li> </ul>
	<ul style="list-style-type: none"> <li>• The redundant server must have separate hardware, not sharing elements like hard drives and RAM etc.to avoid a single point of failure.</li> <li>• The system must be based on server gateway architecture with external appliance servers.</li> <li>• The offered IP telephony system and Media Gateways should be from the same OEM.</li> <li>• OEM presence should be in the market for more than 15 years.</li> </ul>
	<ul style="list-style-type: none"> <li>• The system shall be password protected with different authority levels against unauthorized access to central management interface. It shall be possible to define additional users with different authority levels. It shall be possible to change specific user authorities, through which access to advanced programming features are regulated.</li> </ul>
	<ul style="list-style-type: none"> <li>• System programming and maintenance interface shall be web based.</li> </ul>
	<ul style="list-style-type: none"> <li>• It shall be possible to connect to the system from a remote location as administrator with sufficient protection and change system programs and parameters over LAN/ WAN.</li> </ul>
	<ul style="list-style-type: none"> <li>• In case power failure, the data available in the system should be protected and when the power is restored, the system should resume operating normally without any manual intervention and loss of data.</li> </ul>
	<ul style="list-style-type: none"> <li>• The same IP PBX should have a provision for expansion to 3000 Ports (Any mix/percentage of Analog/IP/SIP) with multiple gateways in campus or geographically distant area.</li> </ul>
	<ul style="list-style-type: none"> <li>• The System should support 5 or more Media Gateways, IP phones of different capacities installed in different Geographical locations in the LAN/WAN network.</li> </ul>

	<ul style="list-style-type: none"> <li>• The offered IP PBX system should have the facility to auto-restart and reload the configuration and software once power is restored and returned to normalcy without any manual intervention.</li> </ul>
	<ul style="list-style-type: none"> <li>• In the event of a failure in the link between servers, the transition from the active server to the hot-standby server must ensure that all active or ongoing calls across the network remain uninterrupted.</li> <li>• The hot-standby server should assume 100% functionality within seconds, providing dial tone to all on-hook extensions and ensuring immediate availability of all resources for call processing.</li> <li>• No restriction on number of installed endpoints being backed up in case of one server fails.</li> </ul>
	<ul style="list-style-type: none"> <li>• The Analog Extension should work up to 5-6 kms satisfactorily on 0.5mm dia telephone copper cable without any degradation in service with loop resistance of Analog extension should be 1000 Ohms or more.</li> <li>• The offered system should support 30 analog extension licenses located 1.5 km away from the server room. OFC provisions are available, but the supplier must lay the telephone copper cable within the premises.</li> </ul>
	<ul style="list-style-type: none"> <li>• The System comprising of Both Servers and Gateways shall be suitable for mounting on 19" Rack</li> </ul>
	<ul style="list-style-type: none"> <li>• The proposed system shall support IPv6 from day one. It shall be possible to assign IPv6 addresses to the system, as well as IPv4 addresses. The system shall be capable of directly responding to IPv6 requests (establishing a call over IPv6, IPv6 supported IP telephone operation etc.) without requiring any converters. The system shall also support hybrid IP networks in which both IPv6 and IPv4 protocols are used. The system shall be able to communicate over IPv4 and IPv6 networks, simultaneously.</li> </ul>
	<ul style="list-style-type: none"> <li>• The offered system should support paging system with one button call from your extension.</li> <li>• Zonal Paging with flexibility of defining zones should be available from Day 1.</li> </ul>
	<ul style="list-style-type: none"> <li>• Programming of servers and IP gateways should be real-time synchronized.</li> </ul>
	<ul style="list-style-type: none"> <li>• The system shall support LCR (Least Cost Routing) feature. The system shall be able to analyze the numbers dialed by extensions and shall automatically divert them to pre-programmed trunk lines based on days of week, or hours of day. Further, the system shall be able to be programmed to add/remove digits to/from dialed numbers as per site requirement.</li> </ul>
	<ul style="list-style-type: none"> <li>• The offered IP PBX should be based on true Server-Gateway architecture with ability to run TDM, IP and SIP endpoints on IP across LAN/WAN.</li> </ul>
	<ul style="list-style-type: none"> <li>• The Offered IP PBX should provide provision to connect Servers and gateways physically separate across</li> </ul>
	<ul style="list-style-type: none"> <li>• The Offered System must provide LDAP integration from Day 1 and required hardware and software module to be included in the bid.</li> </ul>
<b>SYSTEM ADMINISTRATION &amp; MANAGEMENT</b>	<ul style="list-style-type: none"> <li>• The Administration and Management software module must provide backup option for all System Programming parameters.</li> <li>• The system should provide an in-built or integrated GUI-based real-time dashboard displaying graphical information of all calls, including calls made, calls in progress, and other call status details</li> <li>• Multilevel administration must be possible</li> <li>• Access to the PBX system shall be secured with passwords.</li> </ul>

	<ul style="list-style-type: none"> <li>• Different Passwords for different authorities shall be available.</li> <li>• Provision shall be available to bar unauthorized user to connect to the system.</li> </ul>
	<ul style="list-style-type: none"> <li>• The offered IP system Should support the following security features.</li> <li>• Should encrypt IP calls and audio streams end to end with AES-128, SFTP or SRTP.</li> <li>• Security measures for secured data flow in network transmission.</li> <li>• Baring unauthorized users from connecting to the system.</li> <li>• Encrypted and Secured connections between server and IP Gateway.</li> </ul>
	<ul style="list-style-type: none"> <li>• The system should support for voice encoding standards: G.711, G.729A, and other industry standard codes (if any).</li> </ul>
	<ul style="list-style-type: none"> <li>• The system should support NMS/SNMP for provision of remote monitoring, programming &amp; maintenance of EPABX system. It shall be possible to have access to systems from remote locations to monitor the status and to update software or to take system backup.</li> </ul>
	<ul style="list-style-type: none"> <li>• The System should support unified numbering plan for Analog, IP and SIP terminals</li> <li>• It must provide an option to program a mix of 2-3-4-5-&amp; 6 digits numbering scheme across network in any combination</li> </ul>
	<ul style="list-style-type: none"> <li>• IP / SIP Trunking: Offered IP Based EPABX system should be capable of providing seamless IP / SIP trunking with existing IP EPABX systems (equipped with IP / SIP trunking) connected over LAN / WAN / VLAN and VPN / SVPN over public Data Network.</li> </ul>
	<ul style="list-style-type: none"> <li>• The offered IP PBX system thru Gateways must provide option of connecting Analog CO, PRI/E1 Trunks etc</li> </ul>
	<ul style="list-style-type: none"> <li>• The IP PBX must also support PC based maintenance console</li> <li>• This console must have the option to invoke /cancel features and applications for individual extensions, Numbering schemes, trunk groups, IVRS stream, Voice Logger, LCR etc</li> </ul>
	<ul style="list-style-type: none"> <li>• The offered system should support web based receptionist console.</li> </ul>
	<ul style="list-style-type: none"> <li>• System must have security features inbuilt'</li> <li>• Provision shall be available to protect the system against various network-based attacks &amp; broadcast storms.</li> </ul>
<b>WEB BASED RECEPTION / OPERATOR CONSOLE</b>	<p>The Web based Console must be provided with following feature</p> <ul style="list-style-type: none"> <li>• Make and Answer calls</li> <li>• Conference, transfer, redial</li> <li>• Click to call</li> <li>• Multiple Directories</li> <li>• LDAP integrated ready</li> <li>• Call monitoring and Recording</li> <li>• Review call History Log</li> <li>• Real time display of On-Going Calls with Pie and bar charts</li> <li>• Real time monitoring of Trunks and Extensions Busy and Free Status</li> <li>• Dail by name</li> <li>• Scheduling Audio conference</li> <li>• Any other being offered by OEMs</li> <li>• Required Hardware and Software to be provided by Bidder from Day 1</li> </ul>
<b>AUDIO CONFERENCE</b>	<ul style="list-style-type: none"> <li>• Conference minimum 32 party in any combination of Trunks and Extensions.</li> <li>• The offered system should support audio conference bridge for meet me and dial out conference.</li> <li>• It must be possible to have both Meet Me Conference and Outbound conference</li> </ul>

	<ul style="list-style-type: none"> <li>The System must have provision to carry out Single Audio Conference of 10+ participants or multiple Audio Conferences to a maximum of 10+ participants in any combination.</li> </ul>
<b>EMERGENCY REPORTING / VOICE BLAST</b>	<ul style="list-style-type: none"> <li>The offered system should support in built voice blasting system to announce holidays, events, promotion or any important messages to an entire contact list or segment of list.</li> <li>Response: Bidders to provide zone wise grouping in which case if during an event of disaster a zone/group can be reached by dialling a code. All the extensions in that zone/group shall ring simultaneously and a recorded message shall be played. The message can be recorded on a fly or it must have directory of pre-recorded message. The system shall have the facility to ring minimum of 32 extensions in one group/zone. The System must also generate a report which shall state that how many extensions picked up the call with date and time stamp.</li> <li>Bidders may add required hardware and software module and factor the cost if any for this application from Day 1 while bidding</li> </ul>
<b>IVRS</b>	<ul style="list-style-type: none"> <li>IVRS. (Interactive Voice Response System)</li> <li>System must provide flexibility to create IVRS tree/call flow as per customers' needs</li> <li>The offered system should support 9 by 9 level of IVR System. No additional hardware to be used.</li> <li>Text to Speech/Voice prompt converter also must be part of the module</li> <li>IVRS software module must be an integral part of the PBX and must be from same OEM. Third party solution shall not be acceptable</li> <li>Bidders to add the required cost if any for this application from Day 1</li> </ul>
<b>VOICE LOGGER</b>	<ul style="list-style-type: none"> <li>The offered System must have Voice Logger to record extensions and trunks from Day 1.</li> <li>The recording should be available on the server.</li> <li>It must support recording format. WAW or any standard format.</li> <li>Search and download file based on date, time, source, destination and duration</li> <li>Web based configuration, management &amp; reporting must be possible</li> </ul>
<b>VOICE MAIL SYSTEM</b>	<ul style="list-style-type: none"> <li>Voice Mail:</li> <li>If a called extension number is busy then caller must get an option to record the message which shall be stored in the voice mail box of respective extension user</li> <li>Respective extension user must be able to access/retrieve message stored in his VM Box thru a PIN either from internal extension or from external line such as mobile etc</li> <li>Voice Mail facility for all extensions to be provided from Day1. Bidders to add required hardware and software cost in their Bid.</li> <li>The Voice mail must be from the same OEM as that of PBX.</li> <li>Voice mail to Email must be available from Day 1.</li> <li>The Server must have recording space of atleast 3 months data. The server should have its own captive recording capability as compared to connecting a separate PC/Server.</li> </ul>
	<ul style="list-style-type: none"> <li>External Call Forwarding shall be possible wherein if dialed extension is busy or ringing on desk phone the call shall be diverted to his/her mobile</li> </ul>
	<ul style="list-style-type: none"> <li>DIL, DISA &amp; DOSA</li> </ul>
	<ul style="list-style-type: none"> <li>CLIP number and name on Analog Extensions as well as on IP and SIP</li> </ul>
	<ul style="list-style-type: none"> <li>The gateways must support of protection against over voltages and over currents due to lightening or power systems fault.</li> </ul>

	<ul style="list-style-type: none"> <li>● Mobility:</li> <li>● The System should support SIP Client on smart phone of Android and iOS and also Laptop/Desktop</li> <li>● The offered system should support Android based mobile monitoring application.</li> <li>● The offered system should support smart phone as extension with wi-fi client.</li> </ul>
	<ul style="list-style-type: none"> <li>● Zonal Paging/Voice Blast.</li> <li>● An authorized extension user must be able to simultaneously broadcast message over different types of extensions.</li> <li>● The minimum number of extensions that can be programmed in each zone/group must be 21 or more.</li> <li>● It must be possible to generate a report of calls picked up, abandoned calls, retried calls etc</li> </ul>
<b>CERTIFICATIONS</b>	<ul style="list-style-type: none"> <li>● The offered system shall be IP-PABX with a media gateway compliant with TEC-GR standard TEC released in September 2016 or newer.</li> <li>● Valid certificate to be furnished. A valid TEC-GR certificate obtained for IP-PABX with a media gateway in OEM server is also acceptable. But the bidder shall comply to install the same solution using industrial servers.</li> <li>● The OEM must have ISO9001.</li> </ul>
<b>Warranty</b>	<ul style="list-style-type: none"> <li>● The supplied systems shall have a warranty of a minimum of 5 year with all the supplied items and accessories covered under warranty.</li> <li>● Suitable monitoring system and manpower shall be established for providing continuous monitoring and immediate solution to maintain un-interrupted communication for the IP EPABX system installed.</li> </ul>
	<ul style="list-style-type: none"> <li>● In addition to warranty obligations, the supplier shall provide solutions to any software/hardware issues then and there.</li> <li>● Any software modifications/up-gradations in any of the installed systems to resolve system bugs shall be implemented as per site requirements.</li> <li>● Problems/operational inconveniences/ Improvements indicated in operational procedures related to features implemented, system functioning, system integration, system monitoring, etc shall be attended to immediately.</li> </ul>
<b>Documentation</b>	<ul style="list-style-type: none"> <li>● The firm shall supply the manuals/ diagrams for the Advanced IP communication Server based PBX system with onsite comprehensive training.</li> </ul>

**Technical Specification of Basic IP-Phone:**

1.	Technical Description	Compliance (Y/N)
	<ul style="list-style-type: none"><li>• 2.3-inch 128x48 pixel dot-matrix display</li><li>• Support audio codec G.722 and Opus, HD audio on speakerphone and handset</li><li>• Support 6-way audio conference</li><li>• Support EHS wireless headset</li><li>• Dual10/100/1000 Mbps network ports, integrated PoE</li><li>• Two installation methods of desktop stand and wall mountable</li></ul> <p><b>Generic</b></p> <ul style="list-style-type: none"><li>• 2 SIP Lines</li><li>• HD Voice</li><li>• PoE Enabled</li><li>• Dot-matrix display screen</li><li>• Handset / Hands-free / Headset mode</li><li>• Desktop Stand / Wall mountable (optional)</li><li>• Optional External Power Supply</li></ul> <p><b>Phone Functions</b></p> <ul style="list-style-type: none"><li>• Local Phonebook (1000 entries)</li><li>• Remote Phonebook (XML/LDAP, 1000 entries)</li><li>• Call logs (In/Out/Missed, 600 entries)</li><li>• Blocked List/Allowed List</li><li>• Voice Message Waiting Indication (VMWI)</li><li>• Programmable DSS/Soft keys</li><li>• Network Time Synchronization</li><li>• Support Recording (Through Server)</li><li>• Action URL / Active URI</li></ul> <p><b>Call Functions</b></p> <ul style="list-style-type: none"><li>• Call out / Answer / Reject</li><li>• Mute / Unmute (Microphone)</li><li>• Call</li><li>• Hold / Resume</li><li>• Call Waiting</li><li>• Intercom</li><li>• Caller ID Display</li><li>• Speed Dial</li><li>• Anonymous Call (Hide Caller ID)</li><li>• Call Forward (Always/Busy/No Answer)</li><li>• Call Transfer (Attended/Unattended)</li><li>• Call Parking/Pick-up (Depending on server)</li><li>• Redial</li><li>• Do-Not-Disturb</li><li>• Auto-Answering</li></ul>	



- Voice Message (with server)
- 6-way Audio Conference
- Hot Line
- Hot Desking

#### **Audio**

- Wideband ADC/DAC 16KHz Sampling
- Narrowband Codec: G.711a/u, G.723.1, G.726, G.729A/B, iLBC
- Wideband Codec: G.722, Opus
- Full-duplex Acoustic Echo Canceller (AEC)
- Voice Activity Detection (VAD) / Comfort Noise Generation (CNG) / Background Noise Estimation (BNE) / Noise Reduction (NR) / Automatic Gain Control (AGC)
- Packet Loss Concealment (PLC)
- Dynamic Adaptive Jitter Buffer
- DTMF: In-band, Out-of-Band (RFC2833/ SIP INFO)
- VQM voice quality monitoring

#### **Network**

- Physical: 10/100/1000 Mbps Ethernet, dual bridged port for PC bypass
- IP Mode: IPv4/IPv6/IPv4&IPv6
- IP Configuration: Static IP / DHCP / PPPoE
- Network Access Control: 802.1x
- VPN: L2TP / OpenVPN
- VLAN
- LLDP
- QoS
- RTCP-XR (RFC3611), VQ-RTCPXR (RFC6035)

#### **Protocols**

- SIP2.0 over UDP/TCP/TLS
- RTP/RTCP/SRTP
- STUN
- DHCP
- IPV6
- LLDP
- PPPoE
- 802.1x
- L2TP
- OpenVPN
- Sntp
- FTP/TFTP
- HTTP/HTTPS
- TR-069
- AES128 & AES256

#### **Deployment & Management**

- Auto-Provisioning via FTP/TFTP/HTTP/HTTPS/DHCP OPT66/SIP PNP/TR-069
- Web Management Portal
- Web-based Packet Dump

- Configuration Export / Import
- Phonebook Import/Export
- Firmware Upgrade
- Syslog

### Physical Specifications

- LCD: 128x48 pixel graphical LCD with backlight
- Keypad: 33 keys, including

➤ 4 Soft-keys

➤ 9 Function keys (Hold/Transfer/Voice message/Conference/Phonebook /MWI/Headset/Redial/Hands-free)

➤ 4 Navigation keys

➤ 1 OK key

➤ 12 Standard Phone Digits keys

➤ 3 Volume Control keys (Up/Down/Mute (Microphone))

- Handset (RJ9) x1
- Standard RJ9 Handset Wire x1
- 1.5M CAT.5E Ethernet Cable x1
- Desktop stand x1
- Status Indicator Light x1 (Red)
- RJ9 Port x2: Handset x1, Headset x1
- RJ45 Port x2: Network x1, PC x1 (Bridged to Network)
- Security Slot x1
- DC Power Input: 5V/0.6A
- Power Consumption (Adapter): 0.8~1.29W
- Power Consumption (PoE): 1.25~1.86W
- Working Temperature: 0~45°C
- Working Humidity: 10~95%
- Installation:

➤ Desktop Stand

➤ Wall mountable (optional)

- Color: Black
- N.W/CTN: 8.55kg
- G.W/CTN: 9.26kg
- Device Dimensions:

➤ Desktop Stand (45°): 169x201.1x177.4 mm

➤ Desktop Stand (50°): 169x191.9x185.8 mm

➤ Wall mountable: 169x120.1x213.7 mm

## Technical Specification of Premium IP-Phone:

1	Technical Description	Compliance (Y/N)
	<ul style="list-style-type: none"> <li>• 2.4-inch 320x240 color screen.</li> <li>• Support audio codec G.722 and Opus, HD audio on speakerphone and handset.</li> <li>• Support 6-way audio conference.</li> <li>• Support EHS wireless headset.</li> <li>• Built-in 2.4GHz/5GHz Wi-Fi, realizing more flexible connectivity.</li> <li>• Two installation methods of desktop stand and wall mountable.</li> </ul> <p><b>Generic</b></p> <ul style="list-style-type: none"> <li>• 4 SIP Lines</li> <li>• HD Voice</li> <li>• PoE Enabled</li> <li>• 2.4-inch color screen</li> <li>• Handset / Hands-free / Headset mode</li> <li>• Desktop Stand / Wall mountable (optional)</li> <li>• Optional External Power Supply</li> </ul> <p><b>Phone Functions</b></p> <ul style="list-style-type: none"> <li>• Local Phonebook (1000 entries)</li> <li>• Remote Phonebook (XML/LDAP, 1000 entries)</li> <li>• Call logs (In/Out/Missed, 600 entries)</li> <li>• Blocked List/Allowed List</li> <li>• Screen saver</li> <li>• Voice Message Waiting Indication (VMWI)</li> <li>• Programmable DSS/Soft keys</li> <li>• Network Time Synchronization</li> <li>• Built-in Wi-Fi Ø 2.4GHz, 802.11 b/g/n Ø 5GHz, 802.11 a/n</li> <li>• Support Recording (Through Server)</li> <li>• Action URL / Active URI</li> <li>• XML Browser</li> <li>• Customize Background</li> <li>• uaCSTA</li> <li>• Customize Incoming Call Ringtone</li> <li>• Time Plan (timed reboot/timed forward/timed upgrade/timed config)</li> <li>• Hidden DTMF</li> <li>• Ring From Headset</li> <li>• Customize DSS LED lights</li> <li>• Customize BLF</li> <li>• Customize UI Display</li> </ul> <p><b>Call Functions</b></p> <ul style="list-style-type: none"> <li>• Call out / Answer / Reject</li> <li>• Mute / Unmute (Microphone)</li> <li>• Call Hold / Resume</li> <li>• Call Waiting</li> <li>• Intercom</li> <li>• Caller ID Display</li> <li>• Speed Dial</li> <li>• Anonymous Call (Hide Caller ID/Ban Anonymous call)</li> <li>• Call Forward (Always/Busy/No Answer)</li> </ul>	

- Call Transfer (Attended/Unattended)
- Call Parking/Pick-up (Depending on server)
- Redial
- Call Back
- Predial
- Do-Not-Disturb(DND)/Timed DND
- Auto-Answering
- SIP SMS
- Voice Message (On server)
- 6-way Audio Conference
- Hot Line
- Hot Desking
- Direct IP call without SIP proxy
- Fuzzy Search Call
- Action Plan
- Dial Plan
- Call Completion/Auto Redial
- Primary and Backup SIP Servers
- Default Ext Line
- Multicast

#### **Audio**

- HD Voice: HD handset,
- HD speaker
- Wideband ADC/DAC 16KHz Sampling
- Narrowband Codec: G.711a/u, G.723.1, G.726, G.729,G.729A,G.729B,G.729AB, iLBC
- Wideband Codec: G.722, Opus
- Full-duplex Acoustic Echo Canceller (AEC)
- Voice Activity Detection (VAD) / Comfort Noise Generation (CNG) / Background Noise Estimation (BNE) / Noise Reduction (NR) / Automatic Gain Control (AGC)
- Packet Loss Concealment (PLC)
- Dynamic Adaptive Jitter Buffer
- DTMF: In-band, Out-of-Band (RFC2833/ SIP INFO)
- VQM voice quality monitoring

#### **Network**

- Physical: 10/100 Mbps Ethernet,
- dual bridged port for PC bypass
- IP Mode: IPv4/IPv6/IPv4&IPv6
- IP Configuration: Static IP / DHCP / PPPoE | Network Access Control: 802.1x
- VPN: L2TP / OpenVPN
- VLAN | LLDP
- QoS | RTPCP-XR (RFC3611), VQ-RTCPXR (RFC6035)
- DNS-SRV (RFC 3263)
- Support Redundant Servers
- Agent
- Https Mutual Authentication
- Wi-Fi Security Mode : WPA/WPA2-PSK/802.1X EAP

#### **Protocols**

- SIP v1 (RFC2543) v2(RFC3261)
- UDP/TCP/TLS
- RTP/RTCP/SRTP(Optional/Compulsory)

- STUN
- DHCP
- IPv6
- LLDP
- PPPoE
- 802.1x
- 802.1p/Q
- L2TP
- OpenVPN, SNTP, FTP/TFTP, HTTP/HTTPS, TR-069, AES128 & AES256

#### **Deployment & Management**

- Auto-Provisioning via FTP/TFTP/HTTP/HTTPS/DHCPOPT66/SIPPNP/TR-069
- Screenshot
- Web Management Portal
- Web-based Packet Dump
- Configuration Export / Import
- Phonebook Import/Export
- Firmware Upgrade
- Syslog
- Network Firewall
- Online Upgrade

#### **Physical Specifications**

- LCD: 2.4-inch (320x240) Color Screen
- Keypad: 36 keys, including
- 4 Soft-keys
- 9 Function keys  
(Hold/Transfer/Voicemail/Conference/Phonebook/MWI/Headset/Redial/Hands-free)
- 3 Line keys (With LED Indicator Light)
- 4 Navigation keys
- 1 OK key
- 12 Standard Phone Digits keys
- 3 Volume Control keys (Up/Down/Mute(Microphone))
- Handset (RJ9) x1
- Standard RJ9 Handset Wire x1
- 1.5M CAT.5E Ethernet Cable x1
- Desktop Stand x1
- Status Indicator Light x1 (Red)
- RJ9 Port x2: Handset x1, Headset x1
- RJ45 Port x2: Network x1, PCx1(Bridged to Network)
- Security Slot x1
- Power: DC5V / 1A or PoE
- POE complies with the IEEE802.3af standard
- Power adapter: Input:100-240VAC~50/60Hz Output:5V/1A
- Power Consumption (Adapter): 1.218~2.39W
- Power Consumption (PoE): 2.12~3.49W
- Working Temperature: 0~45°C
- Working Humidity: 10~95%
- Installation:
- Desktop Stand
- Wall mountable (optional)
- Color: Black
- Qty/CTN:10pcs
- N.W/CTN: 8.98kg

	<ul style="list-style-type: none"> <li>G.W/CTN: 9.69kg</li> <li>Device Dimensions:</li> <li>Desktop Stand (45°): 169x201.1x177.4 mm</li> <li>Desktop Stand (50°): 169x191.9x185.8 mm</li> <li>Wall mountable: 169x120.1x213.7mm</li> </ul>	
<b>1.1</b>	<b>Phone Features</b>	
	Mute, Call Hold, Do Not Disturb, Speed Dial, Hotline, Redial, Call Back, Auto Answer, Call Forward, Call Waiting, Call Transfer, Room Monitoring, Conference, Directory, Call Logs, Paging, Dial-by-Name	
<b>1.2</b>	<b>Certification:</b> CE, FCC, EMI- EMC, SAFETY, ROHS, <b>TEC</b>	

<b>Operator Console – IP Phone Based</b>	<b>Compliance (Y/N)</b>
4.3" main color display, 2x3.5" side color displays for DSS keys.	
20 SIP lines, hotspot.	
HD audio on speakerphone and handset	
Built-in Bluetooth 4.2	
Wi-Fi connectivity (Via Wi-Fi dongle)	
6-way audio conference	
Up to 106 DSS keys (42 tri-colored physical keys)	
Video Codec H.264 support for receiving video calls	
Dual Gigabit ports, integrated PoE	
Stand with 2 adjustable angles of 40 and 50 degrees	
3 LCDs (Main + DSS)	
Handset / Hands-free / Headset mode	
Intelligent DSS Keys	
Optional External Power Supply	
Local Phonebook (2000 entries)	
Remote Phonebook (XML/LDAP, 2000 entries)	
Call logs (In/out/missed, 1000 entries)	
Blocked/Allowed List	
Screen saver	
Voice Message Waiting Indication (VMWI)	
Programmable DSS/Soft keys	
Network Time Synchronization	
Built-in Bluetooth 4.2: Support Bluetooth headset	
Support Wi-Fi Dongle	
Support Plantronics wireless headset (Through Plantronics)	

EHS Cable)	
Support Recording (Through Flash Drive or Server Recording)	
Action URL/ Active URI	
uaCSTA	
Call Waiting	
Intercom	
Caller ID Display	
Speed Dial	
Anonymous Call (Hide Caller ID)	
Call Forwarding (Always/Busy/No Answer)	
Call Transfer (Attended/Unattended)	
Call Parking/Pick-up (Depending on server)	
Redial	
Do-Not-Disturb	
Auto-Answering	
Voice Message (On server)	
6-way Conference	
Hot Line	
Hot desking	
Call Hold / Resume	
Mute/ Unmute (Microphone)	
Call out/Answer /Reject	
Video codec: H.264	
Video call resolution: QCIF /CIF/VGA/1080P	
HD Voice Microphone/Speaker (Handset/Hands-free, 0~ 7KHz Frequency Response)	
HAC handset	
Wideband ADC/DAC 16KHz Sampling	
Narrowband Codec: G.711a/u, G.723.1, G.726-32K, G.729A/B,	
ILBC	
Wideband Codec: G.722, Opus	
Full-duplex Acoustic Echo Canceller (AEC)	
Voice Activity Detection (VAD)/Comfort Noise Generation (CNG)	
/ Background Noise Estimation (BNE)/ Noise Reduction (NR)/	
Automatic Gain Control (AGC)	
Packet Loss Concealment (PLC)	
Dynamic Adaptive Jitter Buffer up to 300ms	
DTMF: In-band, Out-of-Band - DTMF-Relay(RFC2833)/ SIP INFO	
Physical: 10/100/1000 Mbps Ethernet, dual bridged port for PC	
bypass	
IP Mode:IPv4/IPv6/IPv4&IPv6	
IP Configuration: Static/DHCP /PPPOE	
Network Access Control: 802.1x	
VPN: L2TP/ OpenVPN	
VLAN	

LLDP	
QoS	
RTCP-XR(RFC3611),VQ-RTCPXR(RFC6035)	
SIP2.0 over UDP/TCP/TLS	
RTP/RTCP/SRTP	
STUN	
DHCP	
IPv6	
LLDP	
PPPoE	
802.1x	
12TP	
OpenVPN	
SNTP	
FTP/TFTP	
HTTP/HTTPS	
TR-069	
Auto-Provisioning via FTP/TFTP/HTTP/HTTPS/DHCP OPT66/SIP	
PNP/TR-099	
Web Management Portal	
Web-based Packet Dump	
Configuration Export/Import	
Phonebook Import/Export	
Firmware Upgrade	
Syslog	
Main LCD x1: 4.3 inch (480x272) color-screen LCD	
DSS Key-mapping LCD x2: 3.5 inch (320x480) color-screen LCD	
Keypad: 77 keys, including	
4 Soft-keys	
6 Function keys (Hold, Call forward, Phonebook, MWI,	
Headset, Redial)	
4 Navigation keys	
1 OK key	
1 Return key	
12 Standard Phone Digits keys	
3 Volume Control keys, Up/Down/Mute(Microphone)	
1 Hands-free key	
42 DSS Keys with tri-color LED	
3 Page-Switch (PS) key	
HD Handset (RJ9) x1	
Standard RJ9 Handset Wire x1	
1.5M CAT5 Ethernet Cable x1	
Back Rack x1	
RJ9 Port x2: Handset x1, Headset x1	
RJ45 Port x2: Network x1, PC x1 (Bridged to Network)	



USB2.0 Port x1: Standard A, Connect with Wi-Fi USB dongle or	
Flash Driver	
DC Power Input: 5V/2A	
Power Consumption (PoE): 2.6~ 9W	
Power Consumption (Adapter): 2.4~8W	
Working Temperature: 0~45 °C	
Working Humidity: 10~95%	
Installation: Desktop Stand	
Color: Dark gray	
Device Dimensions	
Desktop Stand (Angles 1): 309 x 214 x 187mm	
Desktop Stand (Angles 2): 309 x 226 x 167mm	
Gift Box Dimensions: 323 x 301 x 71mm	
Outer CTN Dimensions: 624 x 383 x 348mm (10 PCS)	

### Technical Specification – 12-Port PoE+ Gigabit Switch with 10G Uplink

#### 1. Ports & Interfaces

- Minimum **12 × 10/100/1000 Mbps RJ45 PoE+ ports** (IEEE 802.3af/at compliant).
- Minimum **2 × 10G SFP+ uplink ports** (support for hot-swappable SFP+ transceivers).
- Auto-negotiation and auto-MDI/MDIX support on all copper ports.

#### 2. PoE Specifications

- PoE+ support on all 12 ports (IEEE 802.3af/at).
- Minimum **PoE power budget: 120W or higher.**
- Intelligent power management and priority control.

#### 3. Performance

- Switching capacity: **Minimum 40 Gbps.**
- Forwarding rate: **Minimum 30 Mpps.**
- MAC address table: **Minimum 16K entries.**
- Jumbo frame support: **Up to 9,000 bytes.**

#### 4. Layer 2 Features

- VLAN support: IEEE 802.1Q with **minimum 256 VLANs.**
- Link Aggregation (LACP) IEEE 802.3ad.
- Spanning Tree Protocols: STP/RSTP/MSTP.
- IGMP Snooping v1/v2/v3.
- Port mirroring, storm control, loop detection.

#### 5. Layer 3 Lite Features

- Static routing support (IPv4/IPv6).
- DHCP snooping, ARP inspection, basic ACL support.

#### 6. Security Features

- Port security.
- 802.1X authentication.
- Access Control Lists (ACLs) – L2/L3/L4.
- DHCP snooping and IP source guard.

#### 7. Management

- Web-based GUI management.
- CLI access via SSH/Telnet/Console.
- SNMP v1/v2c/v3.
- Support for NTP, RMON, Syslog.
- Firmware upgrade via web/CLI/TFTP.

## 8. Redundancy & Reliability

- Support for dual power input (optional external RPS acceptable).
- Fanless or low-noise design preferred.
- MTBF: Minimum 200,000 hours.

## 9. Environmental & Standards

- Operating temperature: 0°C to 50°C.
- Storage temperature: -20°C to 70°C.
- Humidity: 10%–90% non-condensing.
- Compliance: CE, FCC, RoHS.

## 10. Physical

- Rack mountable (19-inch) with mounting kit included.
- Maximum height: 1U.
- LEDs for link/activity, PoE status, and system diagnostics.

## 11. Warranty

- Minimum **3-year** OEM warranty.

### Server Specifications

- Processor: Intel Xeon Gold series processor, 32 cores per CPU
- Memory: Minimum 64 GB DDR4 ECC RAM, expandable as required
- Storage: 2 × 480 GB SSD configured in RAID 1 for Operating System, and 2 × 2 TB HDD configured in RAID 1 for data storage.
- Network Interface: Minimum Dual 10GbE ports.
- Operating System: Compatible with windows, Linux distributions – Debian / Ubuntu / CentOS /
- Power Supply: Dual redundant hot-plug PSU, 80 PLUS Platinum or higher  
Form Factor: 2U rack-mountable chassis
- Licensing & Capacity: All required licenses should be perpetual and to support up to 3000 IP phones, including redundancy/high-availability server support
- Additional Requirements: Server must be enterprise-grade, support hardware RAID, provide remote management and be suitable for deployment as a IP PBX server.
- Warranty: Minimum 5 years onsite warranty with OEM support.

#### **4.2 Scope of Supply and incidental works:** Scope of Supply includes the following:

- I. Supply of the equipment / system along with the accessories.
- II. Installation, Commissioning and Acceptance by the end user
- III. Training as specified in tender
- IV. On site comprehensive Warranty as specified in SCC
- V. Annual Maintenance Contract / Maintenance Support as specified in BoQ
- VI. Delivery Schedule as specified in SCC

#### **4.4.2 Manufacturer's Inspection Certificate**

After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's facility by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser reserves the options to be present at the supplier's premises during such inspection and testing.

#### **4.4.3 Installation, Commissioning and Acceptance Test**

The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at Purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the satisfaction of the Purchaser, the successful completion of the test specified.

On the event of the ordered item failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which, the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.

Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.

The acceptance tests at the final destination include the following:

a)	
B)	

#### **4.4 Training**

1)	Location	
2)	Number of persons	
3)	Period of Training	
4)	Nature of Training	

**CHAPTER-5**  
**Price Schedule forms**

Bidders are requested to quote their price as per the GeM Format/BOQ as applicable to this Tender Enquiry/NIT. In addition to the GeM Format, bidders are requested to upload a detailed price breakup in PDF, mentioning the price of each item separately only with part-II as financial document.

**CHAPTER-6**  
**Qualification Requirements**

**6.1 Eligibility Criteria**

**a) Legal Valid Entity:**

The Bidder shall necessarily be a legally valid entity either in the form of a Limited Company or a Private Limited Company registered under the Indian Companies Act, 1956 or as per rules prevailing in the country.

Bidder may be Joint Venture, Consortium or Association so long as they are formed and registered prior to the bid submission date.

Copy of Certificate of Incorporation issued by Registrar of firms/companies is to be submitted in support of this criterion or as per rules prevailing in the country.

b) An undertaking (self-certificate) is to be submitted to demonstrate that the bidder satisfies the bidders' eligibility criteria, as mentioned in ITB Clause 1.1.2 in the form of declaration by the Bidder for Code of Integrity & conflict of interest as per Chapter 8.

c) Declaration by the bidder on letter head that he has not been disqualified or black listed or suspended by any other lab of CSIR or any other Govt. Organization/Govt. of India establishment or suspended by CPPP or GeM portals, in the past 24 months.

**6.2 Technical Qualification Criteria Criteria 1 -**

**Experience and Past Performance:**

The bidder (manufacturer or principal or authorized representative – hereinafter referred simply as 'The Bidder') should have manufactured and supplied (erected/commissioned) the similar item having the same or higher specifications (herein after called 'The Product') in the last 3 years, ending 31st March of the previous financial year (hereinafter called 'The relevant Date'). Relevant documents (i.e. proof of supply and satisfactory performance certificate) must be provided along with Technical bids.

**Criteria 2 - Capability- Equipment & manufacturing Facilities: -NA**

'The bidder' must have an annual capacity to manufacture and supply (/erected/ commissioned) at least NA (The Qualifying Quantity)

Note: In case of multiple products in a tender, this criterion shall be applicable product wise. For example, in case of Printing Paper of different specifications/sizes, it shall be applicable to quantity of paper manufactured and supplied specification/size wise.

**6.3 Financial Qualification Criteria**

a) The average annual financial turnover of 'The bidder' during the last three years, ending on 'The relevant Date', should be at ₹.....NA..... as per the annual report (audited balance sheet and profit & loss account) of the relevant period.

b) A copy of the annual report (audited balance sheet and profit & loss account) of the relevant period, duly authenticated by a Chartered Accountant/Cost Accountant in India or equivalent in relevant countries, is to be submitted in support of this criterion. NA

c) The net worth of the Bidder firm (manufacturer or principal of authorized representative) should not be negative on 'The Relevant Date' and also ii) should have not eroded by more than 30% (thirty percent) in the last three years, ending on 'The Relevant Date'. Self-declaration on letterhead of the company to be provided in support of this. (Documentary evidence or supporting document).

#### Applicability in Special Cases:

a) **Applicability to 'Make in India':**

Bidders (manufacturer or principal of authorised representative) who have a valid/approved ongoing 'Make in India' agreement/ program and who while meeting all other criteria above, except for any or more of sub-criteria in Experience and Past Performance above, would also be considered to be qualified provided:

i)	their foreign 'Make-in-India' associates meet all the criteria above without exemption, and
ii)	the Bidder submits appropriate documentary proof for a valid/approved ongoing 'Make in India' agreement/program.
iii)	the bidder (manufacturer or principal of authorised representative) furnishes along with the bid a legally enforceable undertaking jointly executed by them self and such foreign Manufacturer for satisfactory manufacturing, Supply (and erection, commissioning if applicable) and performance of 'The Product' offered including all warranty obligations as per the general and special conditions of contract.

b) **Authorized Representatives:**

Bids of bidders quoting as authorised representative of a principal manufacturer would also be considered to be qualified, provided:

i)	their principal manufacturer meets all the criteria above without exemption, and
ii)	the principal manufacturer furnishes a legally enforceable tender-specific authorisation in the prescribed form assuring full guarantee and warranty obligations as per the general and special conditions of contract; and
iii)	the bidder himself should have been associated, as authorised representative of the same or other Principal Manufacturer for same set of services as in present bid (supply, installation, satisfactorily commissioning, after sales service as the case may be) for same or similar 'Product' for past three years ending on 'The Relevant Date'.

c) **Joint Ventures and Holding Companies:**

Credentials of the partners of Joint ventures cannot be clubbed for the purpose of compliance of PQC in supply of Goods/Equipment, and each partner must comply with all the PQC criteria independently. However, for the purpose of qualifying the Financial Standing Criteria, the Financial Standing credentials of a Holding Company can be clubbed with only one of the fully owned subsidiary bidding company, with appropriate legal documents proving such ownership.

#### Note for Bidders:

a) **'Doctrine of Substantial Compliance':**

The Pre-Qualification Bidding (PQB) and Pre- Qualification Criteria (PQC) are for shortlisting of sources who are competent to perform this contract to ensure best value for money from expenditure of Public Money. This process is neither intended to bestow any entitlement upon nor to create any rights or privileges for the Bidders, by way of overly hair-splitting or viciously legalistic interpretations of these criteria, disregarding the very rationale of the PQB and PQC. Keeping this caveat in view, interpretation by the Purchaser would be based on common usage of terminologies and phrases in public procurement in accordance with the 'Doctrine of Substantial Compliance' and would be final.

b) **The Bidder must declare, whether asked or not in a bid document, any previous transgressions of such a code of integrity with any entity in any country during the last three years or of being debarred by any other Procuring Entity. Failure to do so would amount to violation of this code of integrity.**

- c) In case of an Authorized agents quoting on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/ dealer. The Principal manufacturer directly or through one Authorized agent on his behalf can participate in the tendering process.
- d) Along with all the necessary documents/certificates required as per the tender conditions, the bidder should furnish a brief write-up, backed with adequate data, explaining their available capacity (both technical and financial), for manufacture and supply of the required goods/equipment, within the specified time of completion, after meeting all their current commitments.
- e) Supporting documents submitted by the bidder must be certified as follows:

i)	All copy of supply/work order; respective completion certificate and contact details of clients; documents issued by the relevant Industries Department/National Small Industries Corporation (NSIC)/ manufacturing license; annual report, etc., in support of experience, past performance and capacity/capability should be authenticated by the person authorized to sign the tender on behalf of the bidder. Original Documents must be submitted for inspection, if so demanded.
ii)	All financial standing data should be certified by certified accountants, for example, Chartered Accountants/Cost Accountants or equivalent.

- f) A bidder or any of its affiliates who participated as a consultant in the preparation of the design or technical specifications of the contract i.e. the subject of the bid; cannot participate in the bidding process.
- g) Authorized agents quoting on behalf of its principal Manufacturer need to submit a copy of the agency agreement/authorization certificate with the principal detailing the services to be rendered by them on behalf of the principals, failing which the bid shall not be considered.

## CHAPTER 7

### Contract Form

For details kindly refer Standard Tender Documents uploaded at CSIR-CFTRI website i.e. [www.cftri.res.in](http://www.cftri.res.in)  
→Tender

## **CHAPTER 8**

### **Other Standard Forms**

(To be enclosed as indicated below)TABLE OF CONTENTS

Sl. No.	Name	Annexure
1	Bid Security Form (to be enclosed with the technical bid)	A
2	Bid Securing Declaration. (to be enclosed with the technical bid)	B
3	Bidder Information Form (to be enclosed with the technical bid)	C
4	Bid Form	D
5	Manufacturers' Authorization Form (to be enclosed with the technical bid)	E
6	Performance Statement Form (to be enclosed with the technical bid)	F
7	Service Support Detail Form (to be enclosed with the technical bid)	G
8	Format of declaration of abiding by the code of integrity and conflict of interest to be submitted by the bidder (to be enclosed with the technical bid)	H
9	Certificate of local content with percentage (technical bid)	I & J
10	Land Boarder Sharing Declaration ( to be enclosed with technical bid)	L
11	Deviation Statement Form (to be enclosed with the technical bid)	M
12	Performance Security Form (to be submitted on award of Contract)	N
13	Acceptance Certificate Form (to be submitted on award of Contract)	O
14	Non-Blacking declaration	P
15	Check List – Chapter - 9	

**Note:** Please refer to clause 1.10.1 of the bidding documents for other documents to be attached with the bids/offers

**The Terms and conditions of Standard Tender Documents uploaded at CSIR-CFTRI website i.e. [www.cftri.res.in](http://www.cftri.res.in)→Tender is integral part of this tender.**

**CHAPTER- 9****Check List**

Sr. No.	Description	Bidder's Reply
1	Approximate weight and dimension of the Consignment	Approximate dimensions of the consignment
2	Indian Customs Tariff No. and HSN No. (ICT & HSN No.)	
3	Country of Origin	
4	Percentage of local content (Certificate as per Annexure I & J)	
5	Type of Bidder (Manufacturer/Authorised Dealer / Trader /Any other)	
6	Mode of Shipment By Air / Road	
7	Quoted Final Price is inclusive of all charges like Packing / Transportation / Delivery / Installation/Training, if any.	
8	Delivery Schedule including Supply, Installation, Commissioning, Training & Acceptance	
a)	Delivery of the Item as per Chapter-4/BoQ [In weeks / Days / Months] from the date of PO	
b)	Installation & Commissioning from the date of Delivery of item [In weeks/Days/Months]	
c)	Training from the date of Installation & Commissioning of item [In weeks/Days/Months]	
d)	Acceptance from the date of Training [In weeks/Days/Months]	



<b>9</b>	<b>Payment Term</b>	
<b>10</b>	<b>Statutory Levies</b> [GST/IGST or any other taxes, duties] % of tax to be mentioned.	
<b>11</b>	<b>Bidder's/Beneficiary's GSTIN and Category (MSE / Non-MSE)</b>	
<b>12</b>	<b>Beneficiary's Name and Bank Account Details along with Cancelled cheque</b>	
<b>13</b>	<b>Warranty</b>	
<b>14</b>	<b>Agree to submit Performance Security as per GCC/SCC Clause No.2.13.1</b>	
<b>15</b>	<b>Validity of offer as per Tender document</b>	
<b>16</b>	<b>Order to be placed with</b> [Full address, Tel #, Fax #, Email Id, Contact Person]	
<b>17</b>	<b>Any other information</b>	

Tender No.:

ANNEXURE-A

**BID SECURITY FORM**

Whereas

\_\_\_\_\_ (hereinafter called the tenderer)

has submitted their offer dated \_\_\_\_\_  
for the supply of \_\_\_\_\_  
(hereinafter called the tender)

Against the Purchaser's Tender No. \_\_\_\_\_

KNOW ALL MEN by these presents that WE \_\_\_\_\_  
of \_\_\_\_\_ having our registered office at  
\_\_\_\_\_ are bound unto \_\_\_\_\_ (hereinafter called the "Purchaser")

In \_\_\_\_\_ the \_\_\_\_\_ sum \_\_\_\_\_ of \_\_\_\_\_

For which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

THE CONDITIONS OF THIS OBLIGATION ARE:

(1)	If the tenderer withdraws or amends or modifies or impairs or derogates from the Tender in any respect within the period of validity of this tender OR
(2)	If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity
(a)	If the tenderer fails to furnish the Performance Security for the due Performance of the contract.
(b)	Fails or refuses to accept/execute the contract.

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

This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

\_\_\_\_\_  
(Signature of the authorized officer of the Bank)

\_\_\_\_\_  
Name and designation of the officer  
Seal, name & address of the Bank and address of the Branch

**Note:** Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

Tender No.:

**BID-SECURING DECLARATION FORM**

Date: \_\_\_\_\_

Bid No. \_\_\_\_\_

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

(a)	have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
(b)	having been notified of the acceptance of our Bid by the purchaser during the period of bid validity <ul style="list-style-type: none"> <li>(i) fail or reuse to execute the contract, if required, or</li> <li>(ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.</li> </ul>

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown)  
in the capacity of (insert legal capacity of person signing the Bid Securing Declaration).

Name: (insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of : (insert complete name of Bidder)

Dated on \_\_\_\_\_ day of \_\_\_\_\_ (insert date of signing)

Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

Tender No.:

ANNEXURE-C

**BIDDER INFORMATION FORM**

- (a) *[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted. This should be done of the letter head of the firm]*

Date : *[insert date (as day, month and year) of Bid Submission]*

Tender No : *[insert number from Invitation for bids]*

01.	Bidder's Legal Name <i>[insert Bidder's legal name]</i>
02.	In case of JV, legal name of each party: <i>[insert legal name of each party in JV]</i>
03.	Bidder's actual or intended Country of Registration: <i>[insert actual or intended Country of Registration]</i>
04.	Bidder's Year of Registration: <i>[insert Bidder's year of registration]</i>
05.	Bidder's Legal Address in Country of Registration: <i>[insert Bidder's legal address in country of registration]</i>
06.	<b>Bidder's Authorized Representative Information</b>  Name: <i>[insert Authorized Representative's name]</i>  Address: <i>[insert Authorized Representative's Address]</i>  Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i>  Email Address: <i>[insert Authorized Representative's email address]</i>
07.	Attached are copies of original documents of:  Articles of Incorporation or Registration of firm named in 1, above.

Signature of Bidder \_\_\_\_\_

Name \_\_\_\_\_

Business Address \_\_\_\_\_

Tender No.:

ANNEXURE-D

**Bid Form**

*[The Bidder shall fill in this Form in accordance with the instructions indicated No alterations to its format shall be permitted and no substitutions shall be accepted.]*

Date : *[insert date (as day, month and year) of Bid Submission]*

Tender No. :

To : Director, CSIR-CFTRI, Mysore

We, the undersigned, declare that:

(a)	We have examined and have no reservations to the Bidding Documents, including Addenda No.: <i>[insert the number and issuing date of each Addenda]</i>
(b)	We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods and Related Services <i>[insert a brief description of the Goods and Related Services]</i> as specified in Chapter 4
(c)	The total price of our Bid, excluding any discounts offered in item (d) below, is: <i>[insert the total bid price in words and figures, indicating the various amounts and the respective currencies]</i>
(d)	The discounts offered and the methodologies for their application are: Discounts. If our bid is accepted, the following discounts shall apply. <i>[Specify in detail each discount offered and the specific item of the Schedule of Requirements to which it applies.]</i>
(e)	Our bid shall be valid for the period of time specified in ITB Clause 1.17.1, from the date fixed for the bid submission due date in accordance with ITB Clause 1.19 and it shall remain binding upon us and may be accepted at any time before the expiration of that period
(f)	If our bid is accepted, we commit to obtain a performance security in accordance with ITB Clause 1.43 and GCC Clause 2.13 for the due performance of the Contract and also submit order acceptance within 14 days from the date of contract in accordance with ITB Clause 1.42 and GCC Clause 2.44;
(g)	The following commissions, gratuities, or fees have been paid or are to be paid with respect to the bidding process or execution of the Contract: <i>[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]</i>

Name of Recipient	Address	Reason	Amount
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(If none has been paid or is to be paid, indicate "none.")

(h)	We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
(i)	We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Signed : *[insert signature of person whose name and capacity are shown]*

In the capacity of *[insert legal capacity of person signing the Bid Submission Form]*

Name : *[insert complete name of person signing the Bid Submission Form]*

Duly authorized to sign the bid for and on behalf of: *[insert complete name of Bidder]*

Dated on \_\_\_\_\_ day of \_\_\_\_\_, *[insert date of signing]*

Tender No.:

ANNEXURE-E

**MANUFACTURERS' AUTHORIZATION FORM**

*[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.]*

Date : *[insert date (as day, month and year) of Bid Submission]*

Tender No. : *[insert number from Invitation For Bids]*

To : *[insert complete name and address of Purchaser]*

**WHEREAS**

We *[insert complete name of Manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of Bidder]* to submit a bid the purpose of which is to provide the following Goods, manufactured by us *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 2.20 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Duly authorized to sign this Authorization on behalf of: *[insert complete name of Bidder]*

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ *[insert date of signing]*

**PERFORMANCE STATEMENT FORM**

**Details of similar equipment / systems supplied & installed during past 3 years in India & Abroad**

Tender No.:

Name of the Bidder\_\_\_\_\_

Order Placed by (full address of Purchaser)	Order No. and date	Description and quantity of ordered equipment	Value of order	Date of completion of deliver as per contract	Date of actual completion of delivery	Remarks indicating reasons for late delivery, if any	Has the equipment been installed/ working satisfactory? (Attach a certificate from the purchaser / Consignee)	Name of Contact person along with Telephone No., Fax No. and e-mail address

Signature and Seal of the manufacturer/Bidder .....

Place :

Date :

Tender No.:

**SERVICE SUPPORT DETAIL FORM**

<b>Sr. No.</b>	<b>List of similar type of equipment's serviced in the past 3 years</b>	<b>Address, Telephone Nos., Fax No. and e-mail address of the buyer</b>	<b>Nature of training Imparted/ service provided</b>	<b>Name and address of service provider</b>

Signature and Seal of the manufacturer/Bidder.....

Place :

Date :



Tender No.:

ANNEXURE-H

**Format for declaration by the Bidder for Code of Integrity & conflict of interest**  
**(On the Letter Head of the Bidder)**

Ref. No: \_\_\_\_\_

Date: \_\_\_\_\_

To,

\_\_\_\_\_

\_\_\_\_\_  
(Name & address of the Purchaser)

Sir/Madam,

With reference to your Tender No. \_\_\_\_\_ dated \_\_\_\_\_ I/We hereby declare that we shall abide by the Code of Integrity for Public Procurement as mentioned under Para 1.3.0 of ITB of your Tender document and have no conflict of interest.

The details of any previous transgressions of the code of integrity with any entity in any country during the last three years or of being debarred by any other Procuring Entity are as under:

- a
- b
- c

We undertake that we shall be liable for any punitive action in case of transgression/ contravention of this code.

Thanking you,

Yours sincerely,

Signature  
(Name of the Authorized Signatory)  
Company Seal

Tender No.:

ANNEXURE-I

**Certificate of Local Content**  
**(to be enclosed along with Technical Bid)**

We M/s. \_\_\_\_\_ (Name of Bidder) hereby certify that we meet the minimum  
Local content for the Goods and services offered vide our offer/bid No. \_\_\_\_\_ dated  
\_\_\_\_\_ as specified below:

- Class-I Local Supplier with local content of 50% and above  
OR
- Class-II Local Supplier with local content of 20% and above but less than 50%  
(Tick appropriate category of Local Supplier)

We are not claiming the services such as transportation, insurance, installation, commissioning, training, after sales service (warranty or AMC/CMC support), consultancy and custom clearance including custom duty as local value addition.

We are aware that the false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules (Govt of India) for which we or our successors can be debarred for up to two years as per Rule 151 (iii) of the General Finance Rules along with such other actions as may be permissible under law.

Signed : [insert signature of person whose name and capacity are shown]  
In the capacity of [insert legal capacity of person signing the Bid Submission Form]

Name : [insert complete name of person signing the Bid Submission Form]

Duly authorized to sign the bid for and on behalf of: [insert complete name of Bidder]

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ [insert date of signing]

Tender No.:

ANNEXURE-J

**Certificate of Price break up of Local Content**  
**(to be enclosed along with Price Bid)**

Ref: Clause 1.30.9 and Chapter-9(Part-A) of the Tender No. \_\_\_\_\_

We M/s. \_\_\_\_\_ (Name of Bidder) hereby certify that we meet the minimum

Local content for the Goods and services offered vide our offer/bid No. \_\_\_\_\_ dated

\_\_\_\_\_ as specified below:

- Class-I Local Supplier with local content of 50% and above  
OR
- Class-II Local Supplier with local content of 20% and above but less than 50%  
(Tick appropriate category of Local Supplier)

Minimum Local content is \_\_\_\_\_ % as per Price break up given below:

Component of Cost		Imported Product		Domestic value addition to product	
		In Foreign Currency US% or specify	In Rupees Exchanged Rate 1 US\$ - Rs.	In Rupees	Location of value addition
Goods					
i)	Material				
ii)	Equipment				
iii)					
	Total Quoted Price = [X + Y]		X=	Y=	

$$\% \text{ Local Content} = \left\{ \frac{Y}{X + Y} \right\} \times 100$$

We are not claiming the services such as transportation, insurance, installation, commissioning, training, after sales service (warranty or AMC/CMC support), consultancy and custom clearance including custom duty as Local value addition.

We are aware that the false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules (Govt of India) for which we or our successors can be debarred for up to two years as per Rule 151 (iii) of the General Finance Rules along with such other actions as may be permissible under law.

Signed : [insert signature of person whose name and capacity are shown]  
In the capacity of [insert legal capacity of person signing the Bid Submission Form]

Name : [insert complete name of person signing the Bid Submission Form]

Duly authorized to sign the bid for and on behalf of: [insert complete name of Bidder]

Dated on \_\_\_\_\_ day of \_\_\_\_\_,

**SELF CERTIFICATION**

With reference to Clause No. 1.1.3 of this tender and GoI Ministry of Finance Order No.: F. No. 6/18/2019-PPD dated 23rd July, 2020 on "Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs)" & OM No. F. No. 18/37/2020-PPD dated 8th February, 2021 and as amended from time to time on the date of issue of Tender:

It is certified that

- ☐ We are not a bidder of a country which shares a land border with India.

**OR**

- ☐ We are a bidder of a country which shares a land border with India, however, we are eligible to bid in any procurement whether of goods or services as we are registered with the Competent Authority as specified in Ministry of Finance (GoI) Order No. 6/18/2019 – PPD dated 23rd July 2020. Copy of valid registration is attached.
- ☐ Tick as applicable

Place: Date:

Authorised Signatory Name:  
Company Seal

Tender No.:

**DEVIATION STATEMENT FORM****PART –I**

The following are the particulars of deviations from the requirements of the tender specifications:

Sl.No.	Name of Specifications/ Parts/Accessories of Tender Enquiry	Specifications of quote Model / Part / Accessory	Compliance whether YES/NO	Deviation, if any to be indicated in unambiguous terms (The compliance/ Deviation should be supported by relevant Technical Literature)	Technical justification for the deviation, if any. If specification is superior / inferior than asked for in the enquiry, it should be clearly brought out in the justification

Signature of Bidder

- If the Bidder offers more than one model, then the Compliance Statement must be enclosed for each and every model separately.
- The Technical and Commercial deviations should be indicated separately.
- If the Bidder fails to enclose the compliance statement, his bid is likely to be rejected.
- Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".

Place:

Date:

Signature and seal of the Manufacturer/Bidder

Tender No.:

**PERFORMANCE SECURITY FORM/STAND-BY LETTER OF CREDIT****MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY/ STAND-BY LETTER OF CREDIT**

To,

.....

WHEREAS..... (name and address of the supplier) (hereinafter called "the supplier") has undertaken, in pursuance of contract No. .... dated ..... to supply (description of goods and services) (herein after called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of..... (amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

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

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

This guarantee shall be valid until the ..... day of ....., 20.....

(Signature of the authorized officer of the Bank)

.....

Name and designation of the officer

.....

Seal, Name & Address of the Issuing Branch of the Bank

**Note:**

Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

Tender No.:

Annexure - 0

Acceptance Certificate				
PO No.				Date:
Sub: Certificate of Supply, Installation, Commissioning, Training and Acceptance of Goods & Services				
1	This is to certify that the equipment as detailed below has/have been received in good condition along with all the standard and special accessories (subject to remarks in Para 2). The same has been installed, commissioned and accepted.			
(a)	Contract No.			
	Date			
	Value			
	Mode of Shipment			
(b)	Description of the Equipment			
(c)	Name of the Consignee		CSIR-CFTRI, Mysore	
(d)	Scheduled date of Delivery of the Consignment to the Laboratory/Institute			
(e)	Details of LC Established			
	Date of Establishment	Date of Shipment	Date of Expiry	
(f)	Actual date of receipt of Consignment by the Laboratory/Institute			
	Date of Shipment		Date of Receipt at CSIR-CFTRI	
(g)	Scheduled date for completion of Installation, Commissioning and acceptance			
(h)	Actual date of completion of Installation, Commissioning and acceptance			
(i)	Penalty for Late Delivery (at Laboratory / Institute level) Rs.			
(j)	Penalty for Late Installation, Commissioning and Acceptance (at Laboratory / Institute level) Rs.			
2	Details of accessories/items not yet supplied and recoveries to be made on that account			
Sr. No.	Description		Amount to be recovered	
3	The acceptance test has been done to our entire satisfaction. The Supplier has fulfilled his contractual obligations satisfactory - Yes			
	OR			
	The Supplier has failed to fulfill his contractual obligations with regard to the following:			
Sr. No.	Description		Amount to be recovered	
The amount of recovery on account of failure of the supplier to meet his contractual obligations is as indicated at Para 3				
4	Liquidated Damages/Penalty Percentage			
	No. of Days / Weeks delayed		Amount to be recovered	
5	Warranty Details			
6	Training, if any		COMPLETED/ NOT COMPLETED (attach training Certificate/document, if any)	
7	Details of Performance Security submitted in the form of Bank Guarantee / Demand Draft			
	BG No.	Date	Amount in Rs.	Valid till
				% of BG
For Purchaser (Indenting Officer)		For Purchaser (Project Leader)		
Signature		Signature		
Name		Name		
Designation		Designation		
Name of the Laboratory/Institute		CSIR-CFTRI		Name of the Laboratory/Institute
Date				Date
For Supplier				
Signature				
Name				
Designation				
Name of the Supplier				
Date				

**Annexure- P**  
**Non-Blacklisting Declaration**  
**(To be given on Company Letter Head)**

Date:

To,  
The Director,  
CSIR-CFTRI, Mysore

Sub: Undertaking for not being black listed

Tender Reference No.:

We confirm herewith that our company is not blacklisted, debarred or prosecuted by any Central Government or State Government department/Government Organization/PSU for corrupt, fraudulent or any other unethical business practices, we do not have any litigation pending with any of the Govt. Organizations.

Yours Faithfully,  
(Signature of the Bidder, with Official Seal)