

Amendment-3 to "RFP 02/2020-21 dated 21/10/2020 for Supply, Installation, Implementation, Commissioning and Maintenance of IP Telephony, Turret Phones, Voice Recording/ Logger Solution & Other Items Canara Bank.

It is decided to amend the following in respect of the above RFP:

Bid Schedule (Page No. 1)

Events	Existing	Amended
	Time & Date	Time & Date
Last Date and Time for Submission of Bids	19/12/2020, Saturday at 3:00 PM Venue: Canara Bank, Integrated Treasury Wing, 5 th Floor, B Wing, C14, G Block, Bandra Kurla Complex, Bandra East, Mumbai 400 051.	24/12/2020, Thursday at 3:00 PM Venue: Canara Bank, Integrated Treasury Wing, 5 th Floor, B Wing, C14, G Block, Bandra Kurla Complex, Bandra East, Mumbai 400 051.
Date, Time & Venue for opening of Part A-Conformity to Eligibility Criteria.	19/12/2020, Saturday at 3:30 PM Venue: Canara Bank, Integrated Treasury Wing, 5 th Floor, B Wing, C14, G Block, Bandra Kurla Complex, Bandra East, Mumbai 400 051.	24/12/2020, Thursday at 3:30 PM Venue: Canara Bank, Integrated Treasury Wing, 5 th Floor, B Wing, C14, G Block, Bandra Kurla Complex, Bandra East, Mumbai 400 051.

Sr No	Page No	Clause No	Existing clause	Amended Clause												
1.	12	1.1	Bank shall provide the address and contact details for delivery of required Hardware/ software and other items for implementation of Solution while placing the order. Delivery of all hardware, Software and Other Items should be within 6 Weeks from the date of acceptance of the Purchase Order.	Bank shall provide the address and contact details for delivery of required Hardware/ software and other items for implementation of Solution while placing the order. Delivery of all hardware, Software and Other Items should be within 9 Weeks from the date of acceptance of the Purchase Order.												
2.	12	1.2	Bidder should ensure Installation, Configuration, Integration, Implementation and Commissioning of the delivered Hardware & Software and complete all the works specified in the Scope of Work at the bank within 4 Weeks from the date of delivery of all the materials at the ordered locations.	Bidder should ensure Installation, Configuration, Integration, Implementation and Commissioning of the delivered Hardware & Software and complete all the works specified in the Scope of Work at the bank within 6 Weeks from the date of delivery of all the materials at the ordered locations.												
3.	15	7	<table border="1" style="width: 100%;"> <thead> <tr> <th>Item details</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>Delivery & Power-on of Hardware and Delivery of Software & other Licenses.</td> <td>50% of Total cost of Hardware, Software and other Licenses (including OS).</td> </tr> <tr> <td>Successful Installation of Hardware (including OS), Software and other items.</td> <td>40% of Total cost of Hardware, Software and other Licenses (including OS).</td> </tr> </tbody> </table>	Item details	Location	Delivery & Power-on of Hardware and Delivery of Software & other Licenses.	50% of Total cost of Hardware, Software and other Licenses (including OS).	Successful Installation of Hardware (including OS), Software and other items.	40% of Total cost of Hardware, Software and other Licenses (including OS).	<table border="1" style="width: 100%;"> <thead> <tr> <th>Item details</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>Delivery & Power-on of Hardware and Delivery of Software & other Licenses.</td> <td>60% of Total cost of Hardware, Software and other Licenses (including OS).</td> </tr> <tr> <td>Successful Installation of Hardware (including OS), Software and other items.</td> <td>30% of Total cost of Hardware, Software and other Licenses (including OS).</td> </tr> </tbody> </table>	Item details	Location	Delivery & Power-on of Hardware and Delivery of Software & other Licenses.	60% of Total cost of Hardware, Software and other Licenses (including OS).	Successful Installation of Hardware (including OS), Software and other items.	30% of Total cost of Hardware, Software and other Licenses (including OS).
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4.	48	Annexure-8	The Hardware and Software	The Hardware and Software												



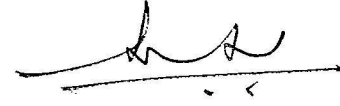
			installation and configuration for the entire set up to be handled by the qualified/ experienced Bidder as per recommendations of OEM.	installation and configuration for the entire set up to be handled by the qualified/ experienced Bidder as per recommendations of OEM.
5.	30	Annexure- 2	Eligibility Criteria Declaration	Amended Eligibility Criteria Declaration is attached
6.	32	Annexure- 7	Technical Specifications	Amended Technical Specifications is attached.
7.	51	Annexure- 14	Bill of Material	Amended Bill of Material is attached.

All the other Instructions and Terms & Conditions of the above RFP remain unchanged.


Please take note of the above Amendments while submitting your response to the subject RFP.

Date: 16/12/2020

Place: Mumbai



Deputy General Manager

रमेश एम के
 REMESH M.K.
 उप महाप्रबन्धक / DEPUTY GENERAL MANAGER
 ह. सं. / S. P. No. 34272


Annexure-2
Eligibility Criteria Declaration

The Deputy General Manager
 Canara Bank, TM Section,
 Integrated Treasury Wing, Mumbai.

SUB: RFP for Supply, Installation, Implementation, Commissioning and Maintenance of IP Telephony, Turret Phones, Voice Recording/ Logger Solution & Other Items Canara Bank.
 Ref: Your RFP 02/2020-21 dated 21/11/2020

We have carefully gone through the contents of the above referred RFP and Replies to Prebid Queries and Amendments and furnish the following information relating to Eligibility Criteria.

	Sr No	Eligibility Criteria	Documents to be submitted for Eligibility Criteria Compliance	Bidder's Response & Documents Submitted
FINANCIALS	1.	The Bidder should have the Average Turnover of minimum Rs.5.00 Crores for last Three (3) financial years (i.e. 2017-2018, 2018-19& 2019-20) from Indian Operations only. This must be the individual company turnover and not of any group of companies.	The Bidder has to submit copies of audited Balance Sheets for last 3 Years [i.e. 2017-2018, 2018-19& 2019-20]. & The Bidder must produce a certificate from the Company's Chartered Accountant to this effect. The documents certified by Chartered Accountants should mandatorily contain Unique Document Identification Number.	
	2.	The Bidder should have Positive Net Worth as on 31/03/2020.	The Bidder must produce a certificate from the Company's Chartered Accountant to this effect. The documents certified by Chartered Accountants should mandatorily contain UDIN.	
BIDDER/ OEM EXPERIENCE	3.	The Bidder should have supplied and successfully implemented offered IP Telephony solution for Minimum 100 Phones in any of these Schedule commercial Banks/ Public Sector Organizations/ Private Sector Organizations/ Central or state organization in India in last Three years as on RFP date.	The Bidder has to provide Purchase order copy & Reference letter in their name with the quantity specified with project details from Schedule commercial Banks/ Public Sector Organizations/ Private Sector Organizations/ Central or state organization in Indian duly mentioning the proposed solution with make & model of this effect.	
	4.	The Bidder/ OEM should have supplied and successfully implemented offered Hardware Dealer Board/ Turret Phones for Minimum 10 Quantity in any Schedule commercial Banks.	The Bidder has to provide Purchase order copy & Reference letter in their name with the quantity specified with project details from Schedule commercial Banks in India duly mentioning the proposed solution with make & model of this effect.	

5.	The Bidder should have supplied and successfully implemented offered Recording solution for Minimum 50 Users Licenses for of offered IP/ Turret Phones in any of these Schedule commercial Banks/ Public Sector Organizations/ Private Sector Organizations/ Central or state organization in India in last Three years as on RFP date.	The Bidder has to provide Purchase order copy & Reference letter in their name with the quantity specified with project details from Schedule commercial Banks/ Public Sector Organizations/ Private Sector Organizations/ Central or state organization in Indian duly mentioning the proposed solution with make & model of this effect.	
6.	The Bidder shall have support office in our Primary Site i.e. Mumbai for 24 x 7 support.	The Bidder has to provide their existing service center infrastructure details like local Contact Person Name, Address, Phone No, Mobile No, E-Mail etc., no of engineers and jurisdiction of the engineer.	
7.	The Bidder should have 2 Certified Engineers of Offered IP Telephony Solution in Mumbai Support Team.	The Bidder has to provide Copies of Valid OEM Certificate, Resumes& Bidders Employment letter.	

We confirm that the information furnished above is true and correct. We also note that, if there are any inconsistencies in the information furnished above, the bid is liable for rejection.

Date

Signature with seal

Name :

Designation :

Annexure-7

Technical & Functional Requirement of IP Telephony, Turret Phones, Voice Recording/ Logger Solution & Other Items

SUB: RFP for Supply, Installation, Implementation, Commissioning and Maintenance of IP Telephony, Turret Phones, Voice Recording/ Logger Solution & Other Items Canara Bank.
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Note:

- a) If the Bidder feels that, certain features offered are superior to what has been specified by the Bank, it shall be highlighted separately. Information regarding any modification required in the proposed solution to meet the intent of the specifications and state-of-the-art technology shall be provided. However, the Bank reserves the right to adopt the modifications/ superior features suggested/offered.
- b) The Bidder shall provide all other required equipment and/or services, whether or not explicitly mentioned in this RFP, to ensure the intent of specification, completeness, operability, maintainability and upgradability.
- c) The selected bidder shall own the responsibility to demonstrate that the services offered are as per the specification/performance stipulated in this RFP and as committed by the bidder either at site or in bidder's work site without any extra cost to the Bank.

A. TECHNICAL REQUIREMENTS:

Sr No	Functionality/ Feature/ Specification	Compliance (Yes/No)	Remarks
1) FOR TURRET SOLUTION			
Proposed Turret solution shall be tightly integrated with proposed IP Telephony & Voice recording solution. Vendor to submit a Certificate/ Declaration from both Dealer Board/ Turret Phones & Recording Original Equipment Manufacturer (OEM)/ Original Software Developer (OSD)/ Original Software Owner (OSO) as per Annexure-15.			
1.	Touch Screen Turret with scratch resistant display		
2.	Dealer Board should provide free seating arrangement. Regardless of location (In multi-location environment) , users will have the same full feature set (via global line sharing and global free seating) and uniform end user experience, as well as comprehensive support and a single service level agreement.		
3.	The Turret should have adjustable angle of placement.		
4.	The Dealer Board should have loud speakers with excellent voice quality. Provision for external mike & speaker, headsets and any other auxiliary devices/accessories should be available. Loudspeaker is used for hands free mode OR when many users are physically present at one place and hearing the conversation, Chief dealer can addressing the team can be on hands free mode.		
5.	It should have Minimum Two Hand-Sets with volume & mute function key on each handset. 2 Handsets will allow user to have multiple calls at a given time and Mute key on handset will help to prevent information from another party who is live on another handset.		
6.	Message-Waiting Indicator (MWI) - Voice mail feature should be available. Visual indication for attending voice message in a mailbox.		
7.	Hunt Groups - In case of a hunt group, an incoming call is signaled at one of the group members. If this member does not answer the call, the call is assigned to the next member. All members of the hunt group can be reached at the same phone number.		
8.	Hotline and Private line automated ring down (PLAR) - Hot line/ other lines enable Dealer to communicate with their customers.		
9.	Abbreviated Dial - The frequently dialed numbers can be stored centrally in the system speed-dial list. Every number is then represented by a speed-dial number which is used instead of the full phone number		
10.	Call Hold and Pickup - You answer a call at your telephone for another		

	extension in your call pickup group.		
11.	Call Status per Line (State & Number) - Status of Each Line will be displayed.		
12.	Calling Line Identification (CLID) - Caller ID of incoming call will be displayed		
13.	Calling party name identification (CNID) - If the number is stored in system with a name, the name of calling person will be displayed		
14.	The turret should support intercom functionality i.e. Turret to Turret calling without using IP EPABX or telecom lines. Intercom - Both direct to ring and direct to speaker intercom calls are extensively used by traders. With the inclusion of turrets, this function must now be device agnostic and allow for intercom communication between all endpoint types. From the trader's perspective, the ability to assign intercom calls to turret physical or soft keys is required.		
15.	Directory dial from Phone—Corporate, personal as and when IP EPABX integration is done. Centralized Store number for frequent dialing		
16.	Distinctive Ring/ Personalized Ringtones. Ring tone to each line for differentiating between the calls prior to pickup		
17.	Shared Line Support - A Line is shared among multiple traders and can be used for incoming or outgoing calls. Other Traders can join in the call by just pressing a key and be a part of communication.		
18.	Private Call features to be enabled on shared lines. Private Key can be enabled on Shared Line and no other trader can barge in/ connect to the call		
19.	Multiple line Appearances per Phone. Information about multiple incoming/ outgoing call on Turret		
20.	Station volume controls (Audio, Ringer) - Volume control as per choice		
21.	Transfer - Transfer of an incoming/ outgoing call to another Trader		
22.	Dealer Boards should support multiple pages at minimum of 12 pages that are freely configurable and each page should have minimum 45 Dynamic Buttons/ keys that are freely programmable per page. It should have Soft labels with alphanumeric programming option. Traders require the ability to quickly visualize and effectively manage incoming customer call from a mix of Toll free, Private or PRI line. Extensive capacity for subsequent pages including both centralized corporate and end user editable customer lists is expected. The ability to share preconfigured pages between traders, or some other intuitive method of on the fly access to another trader's layout is always useful.		
23.	High Resolution touch screen intuitive display size of minimum 10". Clearly indicating the status of each activity performed on the dealer board (example incoming call, active call, call hold etc.) 10-12 inch Screen is a perfect phone size on work place. A compact device-enabling user to perform all required functionalities.		
24.	Turret system should facilitate announcements e.g. Announcement of Head Treasury to dealers across the location, etc.). Broadcast feature enables Head treasury/ Team leader to announce an important message in a single go.		
25.	Dealer board solution should have option to integrate with the corporate directory/ Active Directory for authentication purpose. Active Directory authentication extended to Turret login. Eliminate the need of remembering multiple login credentials.		
26.	The dealer board should have the ability to stream audio channels from Cable TVs as and when required by Bank. TV audio should be accessible on one of the configured line key on trade board. This will enable Dealers to hear TV Audio on their Dealer board.		
27.	Offered solution should provide easy data synchronization between Primary site as well as AUL/ BCP site. This will enable Dealers to either operate from Primary and AUL site with same user experience.		

28.	It should have Conference Facilities and Broadcast facilities. The trader should be able to take multiple participants into conference and should be able to selectively add/drop participants from conference. The head trader should also be able to do a broadcast to group of traders. Should have the ability to create multiple groups.		
29.	At least last 100 calls (Incoming/ Outgoing/ missed) on the phones or the shared lines needs to be saved in the Call Memory. Saving a contact from call history should be available.		
30.	The Turrets of other traders in the group should have the capability to see the existing status of each other calls and should be able to pick up calls whenever required. This feature can be easily configurable by the group admin or desk head.		
31.	The dealer boards should have the capability to highlight call hold on all dealer boards within the group.		
32.	The other traders in the group should be able to pick up the call kept on hold by the first trader. While the call is kept on hold, other traders within the group should get the customer's name as one of the parameters in the highlighted key.		
33.	The dealer board should be able to dispatch incoming call to the identified trader within the group if the trader is busy on other calls.		
34.	Calls in "Ringing" or "Hold" status will be shown in the Call Queue. The Call Queue is to be displayed on the page currently being viewed by the user. It will help Dealers to identify the status of call		
35.	The trader should be able to call back from the list of missed calls/ incoming calls/ dialed calls by clicking on the key without editing the numbers		
36.	Automatic call forward to different Extension/ Voicemail should be possible after a certain time limit, which can be configurable. In the absence of a Dealer, private calls can be forwarded to another dealer		
37.	Turret should provide private number configure option to the dealer. Calls from/to the private numbers should not be visible to other traders in the group.		
38.	Phone numbers and names can be saved (Added/ Deleted/ Edited) in the electronic telephone directory directly from the dealer board and from the central web console. This will help dealer to save frequently dialed number or a new number of a caller in to telephone directory.		
39.	Each Dealer Board should have a local telephone book capable to store at least 1000 entries. Group telephone books should be capable to have minimum 10000-15000 entries. Each dealer board should be able to get group telephone book.		
40.	Line sharing within the group should be possible. The system should allow configuration of multiple groups. There should not be any limitation of number of traders within a group or number of lines per group.		
41.	The other dealers in the group who are authorized should be able to barge in to an existing call; this can be a silent barge in or an active barge in. The dealer should also have an option to join the call.		
42.	Each dealer board should have the capability to lock the call with the use of private key such that other traders are blocked from joining/ barging into the call. The private key should be configurable key.		
43.	A change made by a user on the dealer board need to be saved immediately and automatically in the central database. This will help dealer to save frequently dialed number or a new number of a caller in to telephone directory.		
44.	The head trader's dealer board should have the ability to view the call status of other traders on the floor. He should have barge in / joining capabilities		

	into any call.		
45.	Mute status of particular handset to be distinctly displayed.		
46.	Click to Call feature - It shall be possible for each dealer to select a number on his desktop. The same number shall be automatically dialed and presented on the turret. This will help dealers to select a number from their associated PC and dial out.		
47.	Broadcast - Ability to broadcast call to a group of traders		
48.	Data should synchronize between the two sites (Primary & BCP) on real time basis.		
49.	System to support Real-Time Audit Trail of System Activities		
50.	No call should drop even in case of server switchover due to failure of one server to another server.		
51.	In built recovery system		
52.	Multi location deployment & No single point of failure in the system		
53.	Turret infrastructure shall support IPV6. Bank will implement same as and when required.		
54.	Offered Turret Device shall have noise less design and should operate 24 X 7 effectively without any need of Air Condition cooling and withstand humid condition of Mumbai.		
55.	Turret Solution shall support Scheduled Auto Log out feature to prevent unauthorized access of Turrets.		
56.	Migration of contact details and any other required information from existing system. It should allow easy migration of contact details by way of bulk/file upload.		
57.	Turret solution should support end-to-end encryption of voice call. The system should support encryption across all components, which include turret, IP phones and gateways. The data connection must use TLS 1.2 and voice encryption with advanced AES and SRTP protocol.		
58.	It should support industry standard best practice security protocols for information systems and all security related features should be available.		
59.	Separate Indications/ Color notifications for various types of call like barged/ Conference calls etc.		
60.	Auto scheduled health check for all turrets and corresponding notifications on email to a group of people for proactive resolution. System must be capable of doing auto check for its working/connectivity etc. and configurable to send emails to a group of people for proactive resolution.		
61.	Any type of call should be transferred and established for Outgoing, Incoming, within Dealing group, PABX Extension and Outside Call. It should have call logs. Call should remain recorded continuously if the call is transferred from/to dealer board. It should have feature to integrate with intercom/3 rd Party EPABX.		
62.	Availability of recording channel for each handset/ every call on single turret		
63.	The Turrets of other traders in the group should have the capability to see the existing status of each other calls and should be able to pick up calls whenever required. This feature can be easily configurable by the group admin or desk head.		
64.	It should have provision for remote management tools for support related issue above L2.		
65.	The system shall be provided with a user-friendly GUI based maintenance software. The visual indications of the faults should be available at the Maintenance Console in terms of messages. The system should support remote fault diagnosis.		
66.	The proposed solution should comprise of latest versions of software and licenses versions included in it and should be certified for interoperability with each other. OEM to provide software/ release versions of each of the components.		

67.	Each component in the solution should be supported for 6 years. OEM to provide confirmation for the same. Warranty for 3 years and comprehensive AMC for 3 years must be available.		
68.	Soft turret application should be available for trader's convenience that can allow the trader to control the Turret from the PC desktop, as an optional feature.		
69.	The Turret solution should be open standard with multi-level architecture with high availability to provide 99.99 uptime. Solution should be IP/SIP compliant. It should have high availability by making redundancy in critical levels to ensure uninterrupted call flow, recording, etc. It should have inbuilt hot swappable redundant solutions.		
70.	The solution must be highly scalable and should be capable of supporting at least 50 turrets at main site and 10 turrets at BCP Site (in future)		
71.	Any security vulnerabilities pointed out during periodic scans (Audit, VAPT etc.) by the bank's Information Security Departments to be resolved and closed free of cost during the entire period of contract.(Warranty + AMC)		
72.	Turret solution Must be able to integrate with the selected Voice Recording solution.		
73.	All relevant backend/hardware with Dual Power Supply and software components incl. System software, Operating system etc. to be provided as part of the scope of this procurement. In case of Operating System, it must be latest, if during 3 Years warranty and 3 Years of AMC, OS OEM is announcing End of Life/ Support of installed OS in solution then Bidder has to provide latest OS and reinstall all software components without any cost to bank.		
74.	Bidder has to integrate Turret infrastructure i.e. Server/ Applications/ DB with banks SIEM (RSA Net witness)		
75.	Offered solution shall support TLS Certificate for all Browser based applications with Hypertext Transfer Protocol Secure (HTTPS) of Turret, IP EPABX and Recording. (Bidder has to provide TLS CA Certificate as a part of solution in the name of Bank)		
76.	All Major & Minor application patches and Operating system patches to be done during the warranty/ AMC/ contract period without any extra cost to bank. For this bidder has to provide Monthly report.		
2) IP TELEPHONY SOLUTION			
Proposed IP Telephony shall be certified to work seamless with Turret & recording solution. Hotlines required by dealers & PRI required by both dealers & back office users will be terminated on IP EPABX only. Vendor has to submit interoperability certificates from IP Telephony Solution Original Equipment Manufacturer (OEM)/ Original Software Developer (OSD)/ Original Software Owner (OSO) as per Annexure-15.			
1	The IP Telephony system should be a native SIP real-time IP soft switch system designed to provide enterprises with a robust service creation and delivery infrastructure. The core protocol of system should be IETF Session Initiation Protocol (SIP)		
2	The IP Telephony System should be independent, identical and scalable up to 1000 users at Primary Site and up to 300 users at AUL/ Parallel Site.		
3	The system should provide support to SIP, MGCP, and analog endpoints. It should also have LDAP integration support for contact search.		
4	IP Telephony Solution should support IPv6; Bank will implement same as and when required.		
5	The system should provide the administrator in assuring adequate voice quality of service by providing call admission control (resource reservation) and enforced codec selection on narrow-bandwidth data links.		
6	The redundancy in the system should be deployed in the following ways: •Geographically co-located cluster nodes. There shall not be single point of failure. In case of failure of primary server,		

	secondary server shall takeover without any impact on services and switchover shall be transparent to users. All Active calls (Incoming PRI/ Hotline, outgoing PRI/Hotline, Intercom calls) shall not be disconnected.		
7	The System Management should be browser-based application must be with Hypertext Transfer Protocol Secure (HTTPS) that gives the administrator network status and administrative access to many of the components of the of the solution (Bidder has to provide TLS CA Signed Certificate as a part of solution in the bank's name).		
8	Networking		
a.	The IP Telephony system should support Networking with other systems and should be able to route voice, video, fax, and data.		
b.	The system should be able to internetwork with 3 rd Party EPABX systems using suitable SIP trunks. Proposed IP telephony solution shall integrate with existing Circle Office Avaya IP Office PABX & Head Office ASTTECS PABX over SIP. Minimum 100 SIP trunks shall be available for interoffice calls. It shall be possible to interface with bank's multiple PABX across India by using SIP Trunks in future.		
c.	The system should support SIP and SIP - Qu protocols for internetworking.		
d.	The system should be able to do direct internet work on SIP with certified ITSP and for others it should be able to do inter networking through Session Border Controller.		
9	Media Servers - The system should support One or more media servers to do the following- <ul style="list-style-type: none"> •Provide tones and announcements to support the functionality of many system features& Provide music on hold •Support the station-controlled Audio conference feature by performing media mixing and transcoding where necessary. At given time at least 20 people shall be able to initiate Minimum 6Party ad hoc conferences. 		
10	Routing Features		
a.	A-side signaling-based routing & Alternate routing		
b.	Call diversion for invalid destinations		
c.	Digit modification for digit out pulsing		
d.	E.164 compliance & International translation support		
e.	Leading digit and most-matched digit translation -The translation table uses the starting digit and the best match to route the call when user dials a number		
f.	Media server digit map management -The system should have the ability to create special routes for media server on MGCP protocol. The translation and routing table should allow the management of the digit translation for routes created for the media server for various features like announcement		
g.	Numbering plans, business group		
h.	Origin-dependent routing -The origin-dependent routing feature allows assigning origin based attributes like rate area and class of service to SIP subscribers, SIP servers, and SIP-Q gateways.		
i.	Rerouting based on SIP response codes and WAN outages		
11	Security Features		
a.	Account and password management security		
b.	Defending denial of service attacks		
c.	IPsec baseline & Login categories		
d.	Provisioning and security logging		
e.	Secure CLI & Secure Shell on the System & TLS support—Network connections& Subscriber Access		
12	Gateways		
a.	Primary Site -Proposed solution shall support various types of gateways to connect PRI, CO, Hotline, and SIP Trunks. Vendor shall propose gateways to		

	connect 6 PRI & 48 Hot lines. PRI trunks are common for both Dealers and office users.		
b.	AUL/ Parallel Site -Proposed solution shall support various types of gateways to connect PRI, CO, Hotline, and SIP Trunks. Vendor shall propose gateways to connect 4 PRI &16 Hot lines. PRI trunks are common for both Dealers and office users.		
13	Bidder shall propose Minimum 2 Gateways for PRI Termination so that in case of failure of one gateway, PRI lines terminated on second gateway shall be fully functional.		
14	Hotlines shall also terminate on multiple gateways.		
15	IP Phones - Proposed IP Phones shall seamlessly integrate with offered IP Telephony system.		
i.	Mid-Level IP Phone		
a.	Should have minimum 2.8" Graphical Monochrome/ Color display.		
b.	Should have 4 Context sensitive soft key with LED		
c.	Should have 2 Fixed function keys		
d.	Should have 12 Free programmable keys with LED		
e.	Should have minimum 3 Audio Keys for Mute/Loudspeaker/ Headset with LED.		
f.	Should have Volume +/- Keys and 2/4-Way Navigation key		
g.	IP phone with Power adaptor is required		
h.	Dual 10/100/1000 NIC interfaces		
ii.	High End IP Phone		
a.	Should have Minimum 4" color display		
b.	Should have Minimum 5 Context sensitive soft keys with LED		
c.	Should have Minimum 3 Audio Keys for Mute/Loudspeaker/Headset with LED		
d.	Should have Volume +/- Keys and 2/4-Way Navigation key		
e.	Should support Picture Clip and Screen Saver		
f.	IP phone with Power adaptor is required		
g.	Dual 10/100/1000 NIC interfaces		
iii.	Conference Room IP Phone		
a.	Minimum 3.9" Touch Screen Display		
b.	Should have 3 cardioids microphones supporting minimum 10 ft. pickup distance in 360-degree direction		
c.	Should have full duplex speaker & mic		
d.	Should support following protocols - SIP RFC3261, TCP/IP/UDP, RTP/RTCP, HTTP/HTTPS, DHCP, TFTP, NTP, 802. 1x, TLS, SRTP.		
e.	IP phone with Power adaptor is required		
f.	Dual 10/100/1000 interfaces		
16	All Major & Minor application patches and Operating system patches to be done during the warranty/ AMC/ contract period without any additional cost on bank		
17	OEM's Own or 3 rd Party Call billing software for IP telephony along with necessary hardware to be provided. Call Billing Software shall provide minimum following reports in Date wise, Hourly, Daily, weekly, monthly, yearly format. 1) Incoming & Outgoing Calls 2) Extension &Department wise report 3) PRI side andISD/ STD/ Local calls report 4) Intercom Reports (if enabled) 5) Date wise, Hourly, Daily, weekly, monthly, yearly reports		
18.	OEM's Own or 3 rd Party Fax Server for IP telephony along with necessary hardware to be provided. a. For Primary Site - Min 5 Fax Numbers to be used by 15 User) b. For AUL Site - Min 2 Fax Numbers to be used by 10 Users)		
C. VOICE RECORDING SOLUTION			

Proposed Voice Logger shall be certified to work seamless with proposed Turrets and IP Telephony system. Vendor to submit OEM interoperability certificates from Voice Recording Solution Original Equipment Manufacturer (OEM)/ Original Software Developer (OSD)/ Original Software Owner (OSO) as per Annexure-15.			
1.	Intuitive Setup - Simple configuration and administration application for capturing, storing, managing and replaying calls. User friendly recording query and playback platform		
2.	True AUL Setup - Bidder has to setup Independent & Identical Alternate User location(AUL) setup for Voice Recording Solution at Manipal which will be working parallel with primary site. AUL Setup of Canara bank Dealing Room Site must act as Production system in case Primary Dealing Room Site recording solution goes down and vice-versa without any data losses. In case of disaster scenario AUL setup should be able to playback the calls of Primary Site also and vice-versa.		
3.	Compliance - Tools to Enable PCI Compliancy, Secure Recording and Easy User Management to support PCI compliancy		
4.	Flexible - TDM and VoIP Recording on a single commercial off-the-shelf server must be possible		
5.	Integration - Must integrate easily add to increase performance and simple to integrate into Business Application. System must be able to integrate with existing Turret as well as future upgrades.		
6.	Active voice recording for Turrets and IP Phone shall be proposed. There shall not be any dependency on LAN infrastructure at dealing floor and back office.		
7.	System must be able to provide central Playback and Administration mechanism for both Primary and AUL/BCP site setup.		
8.	Parallel recording architecture with NO Single Point of Failure and No metadata loss shall be proposed		
9.	Voice calls should be always available and can be recovered from any of the systems.		
10.	Same call can be archived to different locations/seismic zones. Possibility of archival to multiple storage solutions including Tape Drive, NAS/SAN, DVD or RDX storage etc.		
11.	Calls need to be segregated and archived to multiple locations based on Turret ID or Trader ID.		
12.	Computer Telephony Integration (CTI) - Turret integration needs to be performed to receive the CTI information.		
13.	System must be capable to create new users, allow them to playback calls and accord necessary permissions easily. Implementation of User Defined Permissions, Group Polices, Multi-level passwords, Strong Passwords Policies and maker/ Checker user profiles must be possible.		
14.	Recording Solution must be Platform Agnostic and must be able to work/integrate with any leading Trading Floor & IP Telephony Systems. In case Bank migrates to any other turret/ IP Telephony platform, solution must be able to be integrated with new turret platform.		
15.	Setup must be able to provide IP, Digital and Analog interfaces so that it can be used for TDM platforms and IP platform also.		
16.	Encryption and security must be as per industry standards (viz. 256bit AES encryption, SHA, fingerprinting, HTTPS on browser etc.) and shall be enables from day one.		
17.	Support of SNMPv3 for monitoring& SMTP for alerts and Multiple audio compression rates should be available		
18.	Solution must be highly Scalable		
19.	Support for mix input types (analog, digital, trunk, VoIP)		
20.	Support for Virtualized solution for Core, CTI and Active VOIP Recorders		
21.	Possibility for hybrid recording of Analog, TDM, & VoIP with multiple CTI.		

22.	Support for full or Rule Based Recording.		
23.	Domain/AD Authentication/ Single Sign On Integration.		
24.	Capability to Integrate with CRM Applications.		
25.	Search interactions by extra data with multiple business data fields		
26.	All calls including Hotlines and Transferred calls from other extensions on Hard & Soft Turret Phone and Hard & Soft IP Phones to be recorded without any data losses in high quality at both Primary and AUL sites.		
27.	Call archiving should be as per the archiving policy of the bank and there should be no limitation on the same.		
28.	Call retention should be in compliance with laid down Bank regulations and must be customizable.		
29.	For Turrets - The recording system should be dealer board based and all calls landing on the dealer board or initiated from the dealer board should be recorded.		
30.	For IP Phone - The recording system should be IP Phone based and all calls landing on the IP Phone or initiated from the IP Phone should be recorded.		
31.	Capability of creation and generation of various Types of reports like User/Channel Utilization, Call volume, Average call length etc.		
32.	The Voice Recorder solution should be open standard with multi-level architecture with high availability. It should have high availability by making redundancy in critical levels to ensure uninterrupted recording. It should have inbuilt hot swappable redundant solutions.		
33.	The voice recording solution should have provision for maintaining the recorded calls for minimum of 10 years and should be compliant with RBI/ SEBI/ other regulatory requirements.		
34.	For Turrets, the recording solution should be dealer board base and capable of recording all type of calls/ conversations i.e. Hotlines, PSTN Trunk, IP/SIP Trunk, ISDN PRI, Intercom (within the dealer boards) and be able to integrate with IP PBXs from vendor to provide all relevant CTI data.		
35.	The recording solution must store all calls in encrypted format such as AES 256, SHA2, must be able to manage retention rules with provision to maintain recorded calls for 10 years and beyond with granular retention management (per user/dealer board/group/system recorded/location etc.). Encryption should be industry standard and as per auditing norms.		
36.	The Voice solution should have archival solution and archival policy based on Bank's requirements. Archival location can be at Bank's DC & DRC.		
37.	Voice Recording System should support standard encryption technology such as AES 256, SHA2 etc. to archive voice files and should have provision to convert voice files into Windows standard Media format such as wav in real time.		
38.	Voice Recording Solution should be capable of scaling from IPV4 to IPV6 as and when required, bidder will not charge any cost to bank for same.		
39.	The Voice Recording should have web-based access for administration and calls control, access should be Policy based, and role based permissions for each users and administrators. The voice solution should have option to upload the Bank's directory in XLS/XLSX/CSV form.		
40.	The entire calls flow and voice solution should support audit trail and should be audited properly for ensuring compliance		
41.	Logger should have built-in redundancy at all critical levels in core logging and application. Failover redundancy should be made available at Primary site.		
42.	The hardware used for Voice Recording Solution should be server class hardware with server class operating systems.		
43.	A Centralized Admin and Playback module to be provided with single administration and playback interface for all the recordings including archived recordings for both Primary and AUL sites and archived call at Data Centers.		
44.	All Major & Minor application patches and Operating system patches to be		

	done during the warranty/ AMC/ contract period without any additional cost to bank.		
45.	The solution must be highly scalable and should be capable of supporting concurrent recording for at least up to 150 Phones at Primary & AUL/ Parallel site.		
46.	Any security vulnerabilities pointed out during periodic scans by the bank's Information Security Departments to be resolved and closed free of cost during the entire period of contract.		
47.	Must be able to integrate with the selected Turret & IP Telephony solution		
48.	Lossless recording for all channels at both Primary and AUL sites and lossless transition between Primary and AUL/ Parallel Sites (vice-versa) in all possible scenarios. All packets to be transferred to the redundancy sites at Primary and AUL sites in a lossless fashion.		
49.	Support for concurrent users for replay of calls		
50.	Retention of call data records in database, core and archive to be at least 10 Years.		
51.	Solution to be capable for an average call volume of 1,000 calls per day, each call average time being 10 Minutes and must be scalable further. For 1 Year, calls should be stored in Logger server itself. Archival and Backup solution also to be provided as per above requirements.		
52.	Each component in the solution should be supported for 6 years. OEM to provide confirmation for the same. Warranty for 3 years and comprehensive AMC for 3 years must be available.		
53.	All relevant backend/hardware and software components incl. System software etc. to be provided as per of the scope of this procurement.		
54.	Offered solution shall support TLS Certificate for all Browser based applications with Hypertext Transfer Protocol Secure (HTTPS) of Turret, IP EPABX and Recording/ Logger Solution. (Bidder has to provide TLS CA Certificate as a part of solution in the name of Bank)		
55.	Vendor shall provide additional component, which facilitates strict monitoring of regulated users. Some of the features supported shall be as follows - <ul style="list-style-type: none"> • Search & replay of recorded calls from Server or storage. • Centralized user administration & configuration of recording servers. 		
D. Servers, Application, Database, OS & Other Items			
1.	Supply of all required servers with OS, database, applications etc. for entire solution is into bidder's scope.		
2.	Bidder shall propose servers with Dual Power supply, Appropriate RAID configuration with SSD Disk.		
3.	20% Minimum additional compute capacity than actual requirement.		
4.	Bidder shall provide actual hardware & software requirement certified by OEM for each component (Turret system, IP Telephony & Voice Logger)		
5.	Tape Drive (LTO 7 or later) based Backup Solution should be provided with this solution for backup of all Call Recordings and required OS, Application and data.		

Date:

Signature with Seal:
 Name:
 Designation:

Annexure-7(B)
Sizing of Hardware including Software/ OS

Quoted Hardware/ Software/ OS details for Entire IP Telephony, Turret Phones, Voice Recording/ Logger Solution & Other Items:

Sr No	Sub Components	Qty	Device Type Physical/ VM/ Appliance)	Core s	Processor	Storage		Software's	
						RAM GB	Storage GB/ TB	Operating System	Database
Primary Site									
a.	Server-1 (.....)								
b.	Server-2 (.....)								
c.	Server-3 (.....)								
d.	Server-4 (.....)								
e.	Licenses								
f.	System Software								
g.	Middleware								
h.	Any other Software								
i.	Backup Solution								
AUL Site									
j.	Server-1 (.....)								
k.	Server-2 (.....)								
l.	Server-3 (.....)								
m.	Server-4 (.....)								
n.	Licenses								
o.	System Software								
p.	Middleware								
q.	Any other Software								
r.	Backup Solution								

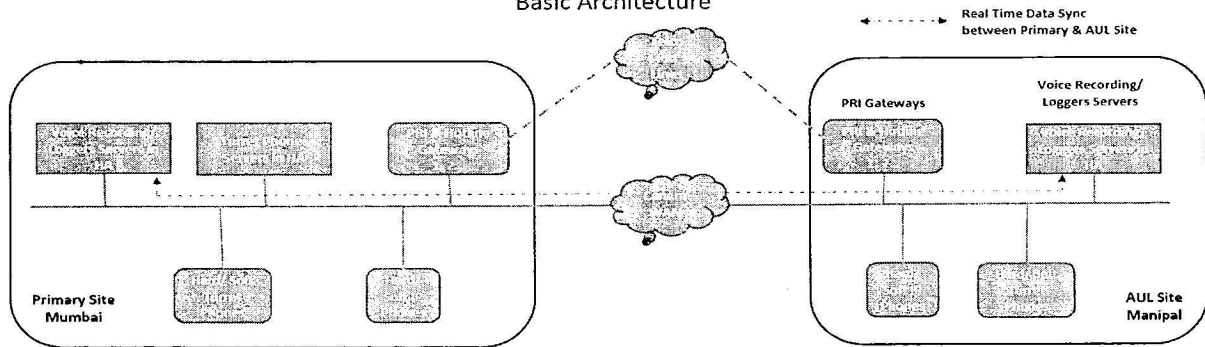
Annexure-7(C)
Hardware/ Software Details

Quoted Hardware/ Software/ OS details for Entire IP Telephony, Turret Phones, Voice Recording/ Logger Solution & Other Items:

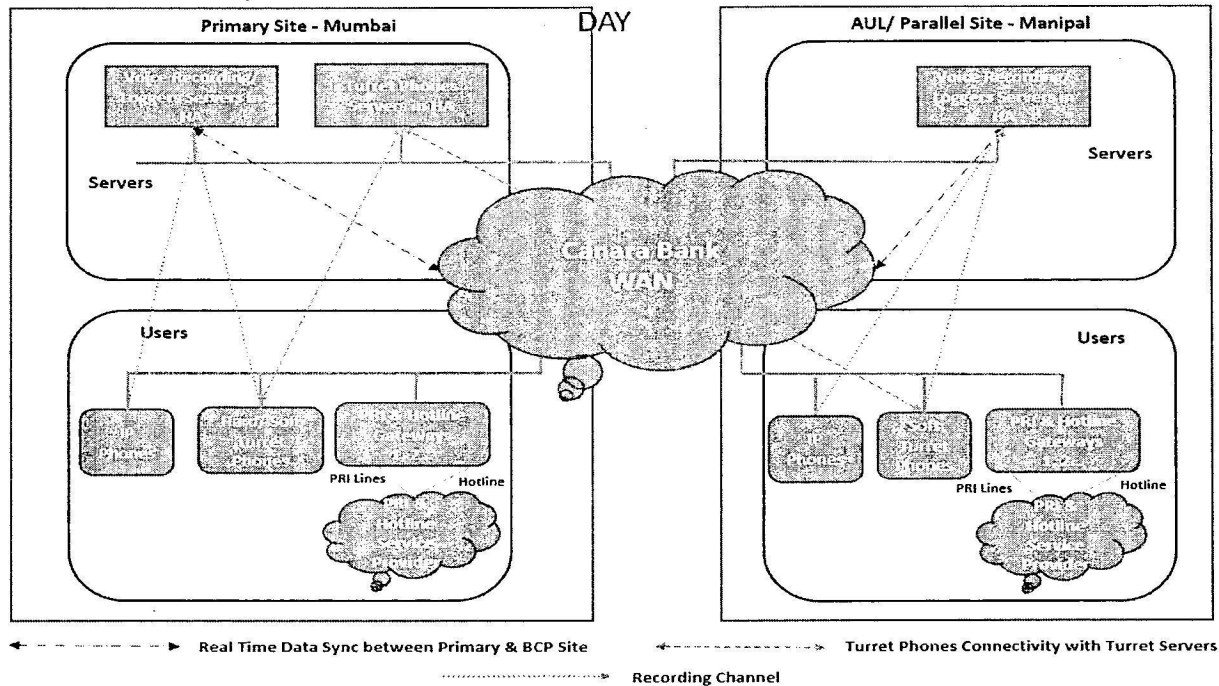
Sr No	Item Description	Qty	OEM Of Product	Model Name	Date of Release of Product	OS Version	End of Life (EOL)/ End of Support (EOS) Details of the offered Hardware/ Software	Configuration of the offered Equipment, available Ports Et open slots etc.
1.	PRI Gateways for Primary Site							
2.	PRI Gateways for AUL Site							
3.	Hotlines Gateways for Primary Site							
4.	Hotlines Gateways for AUL Site							
5.	IP Telephony Servers for Primary Site							
6.	IP Telephony OS for							

	Primary Site							
7.	IP Telephony App/ Software for Primary Site							
8.	IP Telephony DB for Primary Site							
9.	IP Telephony Servers for AUL Site							
10.	IP Telephony OS for AUL Site							
11.	IP Telephony App/ Software for AUL Site							
12.	IP Telephony DB for AUL Site							
13.	Hardware Turret Phones for Primary Site							
14.	Turret Phones Servers for Primary Site							
15.	Turret Phones Servers OS for Primary Site							
16.	Turret Phones App/ Software for Primary Site							
17.	Turret Phones DB for Primary Site							
18.	Voice Recording Servers for Primary Site							
19.	Voice Recording OS for Primary Site							
20.	Voice Recording App/ Software for Primary Site							
21.	Voice Recording DB for Primary Site							
22.	Voice Recording Servers for AUL Site							
23.	Voice Recording OS for AUL Site							
24.	Voice Recording App/ Software for AUL Site							
25.	Voice Recording DB for AUL Site							
26.	Voice Recording Servers for Primary Site							
27.	Call Billing Server & Software for Primary Site							
28.	Call Billing Server & Software for AUL Site							
29.	Fax Server & Software for Primary Site							
30.	Fax Server & Software for AUL Site							
31.	Other SystemSoftware (specify the list serially)							
32.	Other hardware/software(sp ecify the list serially)							

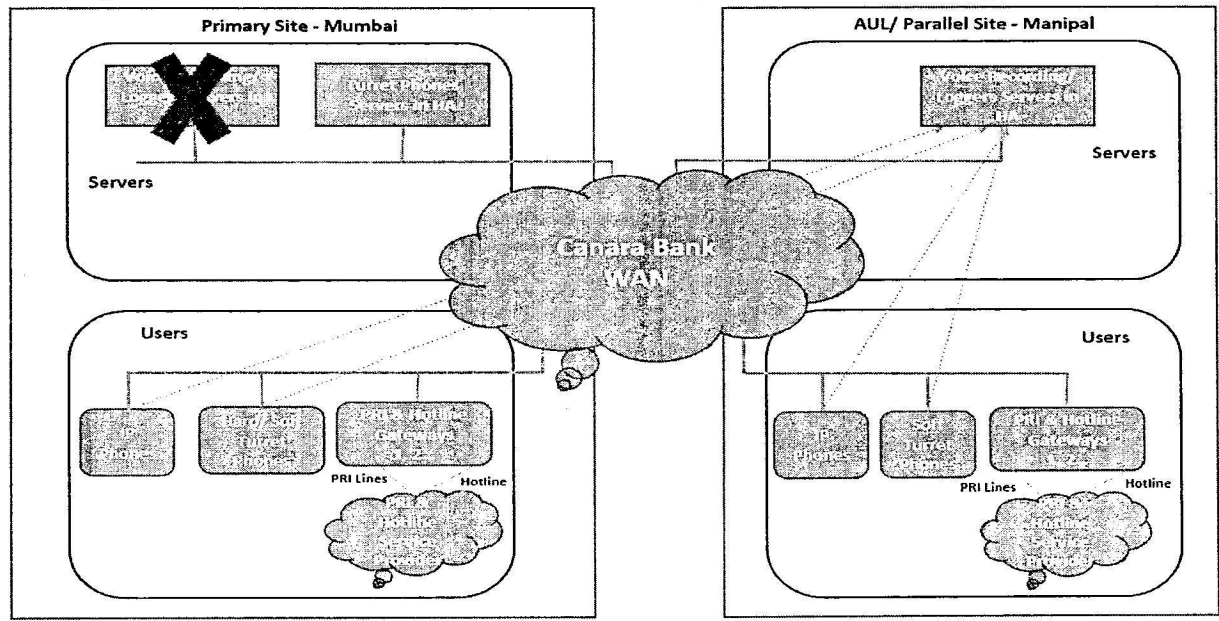
Annexure-7(d)
Basic Architecture



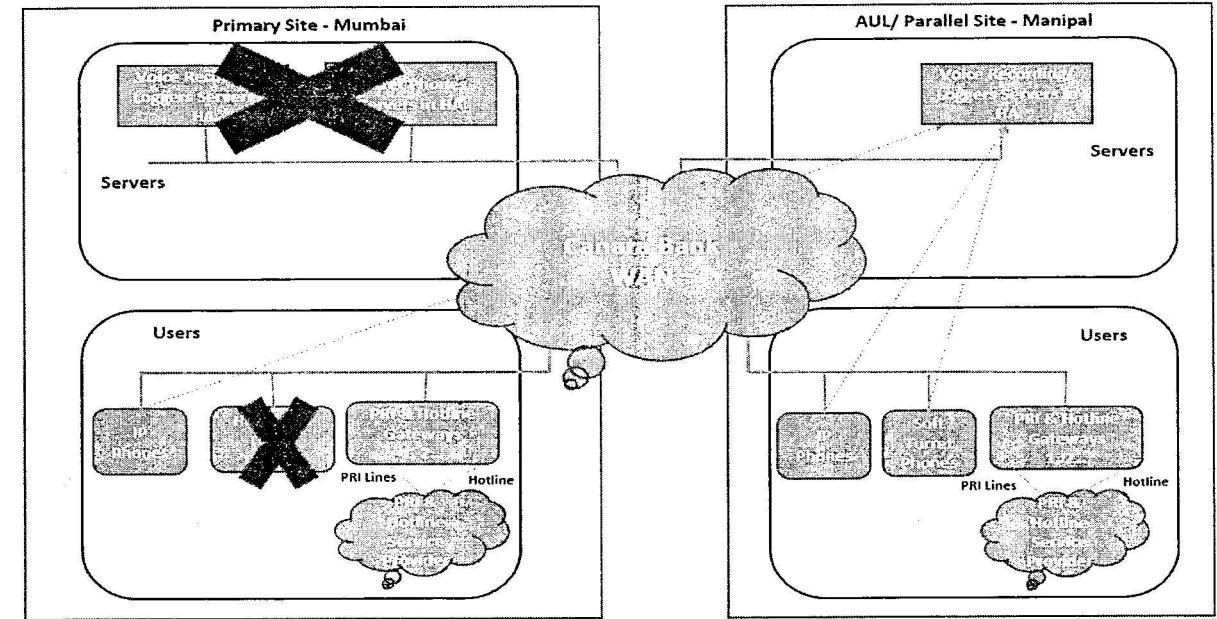
BCP/ AUL ARRANGEMENT SCENARIO – NORMAL WORKING



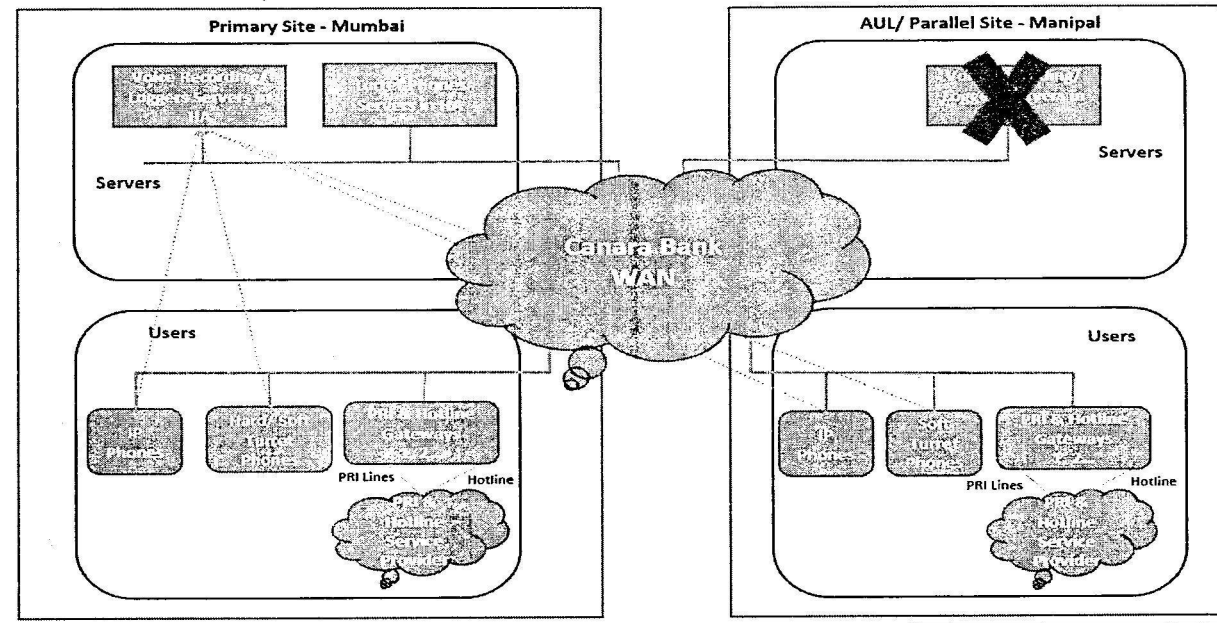
BCP/ AUL ARRANGEMENT SCENARIO – Primary Site Voice Recording Servers Down



BCP/ AUL ARRANGEMENT SCENARIO – Primary Site Voice Recording & Turret Phones Servers Down



BCP/ AUL ARRANGEMENT SCENARIO – Full Primary Site Down



Declaration:

1. We hereby confirm that we have various certificates/bench mark testing standards for the items quoted to meet the intent of the RFP.
2. We hereby confirm that we have back-to-back arrangements with third party hardware and software for providing continuous and un-interrupted support to meet SLAs obligations as per RFP Terms.

Date:

Signature with Seal:

Name:

Designation:

Annexure- 14
Bill of Material

SUB: RFP for Supply, Installation, Implementation, Commissioning and Maintenance of IP Telephony, Turret Phones, Voice Recording/ Logger Solution and Other Items in Canara Bank.

Ref: RFP 02/2020-21 dated 21/11/2020

Notes

1. These details should be on the letterhead of Bidder and each & an Authorized Signatory with Name and Seal of the Company should sign every page.
2. Please be guided by RFP terms, subsequent amendments and replies to pre-bid queries (if any) while quoting.
3. Do not change the structure of the format nor add any extra items.
4. No counter condition/assumption in response to commercial bid will be accepted. Bank has a right to reject such bid.

Table -A

Price details for Implementing IT Infrastructure Monitoring Solution in Canara Bank

[Amount in Rs.]

Sr No.	Requirement Details	Cost Price				AMC/ ATS (as per Table E)*				Quantity	Total Cost with Three Years Comprehensive Onsite Warranty and Three Years AMC/ATS after Warranty period (Incl. of tax)	
		Unit Price with Three years Comprehensive onsite warranty and support (Excl. of Tax)	Tax for Column A	Unit Price with Three years Comprehensive onsite warranty and support (Incl. of Tax)	Three years AMC/ ATS charges per unit after warranty period (Excl. of Tax)	Tax for Column E	Three years AMC/ ATS charges per unit after warranty period (Incl. of tax)	Unit Price with Three Years Comprehensive Onsite Warranty and Three Years AMC/ATS after Warranty period(Incl. of tax)				
		A	B= % of tax	C= Tax Amt	D= A+C	E	F= % of Tax	G= Tax Amt	H= E+G	I=D+H	J	K= (IxJ)
Turret Phones/ Dealer Board at Primary Site												
1.	Hardware Turret Phones/ Dealer Board with Dual Handsets										5	
2.	Hardware Turret Phones/ Dealer Board with Single Handsets										5	
3.	Software Turret Phones/ Dealer Board licenses with Single Handset & Required Accessories to connect Handset to system. (Bank will provide required system for soft Turret installation)										5	
4.	Wired Headsets for Dealers (Headset shall be compatible to work with both Hard Turrets and Soft Turrets) Headsets shall be of reputed make having global presence. Bidder has to provide required Accessories/ Connectors to connect it with Hard Turret Phones and Soft Turrets on PC.										5	
5.	Supply of all required System control setup											

Table - D
Total Cost for 6 Years Contract Period

[Amount in Rupees]

Sr No	Details	Total Cost of Ownership [Incl. of tax]
A	Total Cost for Implementing IP Telephony, Turret Phones, Voice Recording/ Logger Solution in Canara Bank Hardware as per Table-A [Total of Column K]	
B	Total Charges for Onsite Resources as per Table-B [Total of Column g]	
C	Total Charges for Post Implementation Training as per Table-C [Total of Column d]	
Total Cost of Ownership [D = A + B+ C]		

Table-E
Post Warranty AMC/ ATS Calculation Table for Unit Quantity for Table-A

[Amount in Rupees]

Sr No	Description	Post Warranty AMC/ATS Charges year wise***						
		4 th Year AMC/ ATS Charge (Excl. of tax)	5 th Year AMC/ ATS Charge (Excl. of tax)	6 th Year AMC/ ATS Charge (Excl. of tax)	Total AMC/ ATS for 3 Years (Excl. of Tax)	Tax %	Tax in Amt.	Total AMC/ ATS for 3 Years (Incl. of Tax)
		A	B	C	d=a+b+c	e	f	g=d+f
Turret Phones/ Dealer Board for Primary Site								
1.	5 No of Hardware Turret Phones/ Dealer Board with Dual Handsets							
2.	5 No of Hardware Turret Phones/ Dealer Board with Single Handsets							
3.	5 No of Software Turret Phones/ Dealer Board licenses with Single Handset & Required Accessories to connect Handset to system. (Bank will provide required system for soft Turret installation)							
4.	All required System control setup and complete turret Infrastructure including all backend hardware & Software in redundant mode at Primary Dealing Room Site in line with technical specifications.							
IP Telephony for Primary Site								
5.	SIP based IP telephony Software in Hot standby redundant mode including all backend hardware, Software etc in redundant mode at Primary Dealing Room Site in line with technical specifications.							
6.	< > No of Gateways for 06 PRI Lines							
7.	< > No of Gateways for 48 Hot Lines							
8.	60 No of High End IP Phones							
9.	290 No of Mid-Level IP Phones							
10.	4 No of Conference Room IP Phones							
11.	30 No of Software IP Phone							
12.	100 No of SIP Trunks for networking with EPABX at Banks Circle offices and Admin Units.							
13.	Call Billing software for IP Telephony							

IP Telephony for AUL Site									
14	SIP based IP telephony Software in Hot standby redundant mode including all backend hardware & Software in redundant mode at Primary Dealing Room Site in line with technical specifications								
15	<__> No of Required Gateways for 04 PRI Lines								
16	<__> No of Required Gateways for 16 Hotlines								
17	20 No of High End IP Phones								
18	130 No of Mid-Level IP Phones								
19	2 No of Conference Room IP Phones								
20	20 No of Software IP Phones								
21	100 No of SIP Trunks for networking with EPABX at Banks Circle offices and Admin Units.								
22	Call Billing software for IP Telephony								
Voice Recording/ Logger for Primary & AUL Site									
23	70 for Primary Site	10 for 5 No of Hard Turret Phones/ Dealer Board with Dual Handsets + 5 for Hard Turret Phones/ Dealer Board with Single Handset + 5 for Soft Turret Phones/ Dealer Board + 50 for IP Phones (Hard & Soft)							
	30 for AUL Site	25 for IP Phones (Hard & Soft) + 5 for Soft Turret Phones/ Dealer Board							
Voice Recording/ Logger for AUL Site									
Other Items									
24	Tape Drive (LTO 7 or later) based Backup Solution of Primary Site								
25	Tape Drive (LTO 7 or later) based Backup Solution of AUL Site								
26	Hardware/ Appliance for deploying proposed solution at Primary Site	Servers for Turret Phones/ Dealer Board							
		Server for IP Telephony with Call Billing Software							
		Server for Voice Recording/ Logger.							
		Server for Fax Application							
		Any other (add more rows of required)							
27	Hardware/ Appliance for deploying proposed solution at AUL Site	Server for IP Telephony with Call Billing Software							
		Server for Voice Recording/ Logger.							
		Server for Fax Application							
		Any other (add more rows of required)							
28	All System Software/ Applications/ Operating System/ Database/ VM/ Middleware Licenses etc. as per technical specifications & Scope of Work for deploying Proposed Solution at Primary Site.								
29	All System Software/ Applications/ Operating System/ Database/ VM/ Middleware Licenses etc. as per technical specifications & Scope of Work for deploying Proposed Solution at AUL Site.								
30	<__> No of TLS Certificates for entire solution at Primary Site								
31	<__> No of TLS Certificates for entire solution at AUL Site								
32	Any Other Software licenses for Primary Site (Break up details to be provided)								
33	Any Other Software licenses for AUL Site (Break up details to be provided)								

***The Charges mentioned in column 'c' of Table-E should tally with the charges mentioned under Column 'E' of Table-A. The Charges mentioned in column 'f' of Table-E should tally with the charges mentioned under Column 'H' of Table-A.

Undertaking

- i. Bill of material is submitted on the letterhead and is signed by an Authorized Signatory with Name and Seal of the Company.
- ii. We confirm that we have gone through RFP clauses, subsequent amendments and replies to pre-bid queries (if any) and abide by the same.
- iii. We have not changed the structure of the format nor added any extra items. We note that any such alternation will lead to rejection of Bid.
- iv. We agree that no counter condition/assumption in response to commercial bid will be accepted by the Bank. Bank has a right to reject such bid.
- v. We are agreeable to the payment schedule as per "Payment Terms" of the RFP.

Date

Signature with seal :

Name :

Designation :