

Sl. No.	Page No.	Section	RFP Clause	Clause/Technical Specification	Bidder's Query	Bank's Reply
1	10	<u>Section-B Introduction</u>	<u>4. Objective</u>	4.1. Bank intends to do database consolidation by using Oracle Real Application Cluster (RAC) and migrate existing databases instance from standalone servers to proposed hardware, software and other items as per the Terms & Conditions, Technical Specifications and Scope of Work described elsewhere in this document.	Since Bank Intends to do consolidation of Oracle database with Oracle Real Application cluster (RAC), Integrated Systems based solution Optimised for Oracle Database is suggested for better consolidation and higher performance throughput as against standalone intel hardware and discrete storage system. It is also suggested that Bank should look at Oracle Hypervisor and Oracle Linux Operation system for better integration with Oracle database and performance. It is also Suggested that Engineered Systems Specially Designed to deliver Best Performance and provide Optimal Platform for Various Database Workloads. request to consider Oracle Engineered System Platform for Oracle Database & RAC workloads and consolidation of Database across application workloads.	Bidder to comply with RFP terms.
2	15	<u>Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)</u>	<u>1. Supply, Installation, Configuration, Implementation and Maintenance of Hardware, Software and Other items in CANARA BANK for consolidating the Databases using Oracle Real Application Cluster (RAC):</u>	1.1. Bank shall provide the address and contact details for delivery of required Hardware/software & other items as mentioned in Technical Specifications (Details provided elsewhere in the document) while placing the order. Delivery of all hardware, Software and Other Items should be <u>within 6 weeks</u> from the date of acceptance of the Purchase Order for non-road permit locations. It will be the sole responsibility of the vendor to submit any form required for release of shipment from the check post.	Request Bank to change the clause : Bank shall provide the address and contact details for delivery of required Hardware/software & other items as mentioned in Technical Specifications (Details provided elsewhere in the document) while placing the order. Delivery of all hardware, Software and Other Items should be <u>within 8 weeks</u> from the date of acceptance of the Purchase Order for non-road permit locations. It will be the sole responsibility of the vendor to submit any form required for release of shipment from the check post.	Bidder to comply with RFP terms.
3	15	<u>Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)</u>	<u>1. Supply, Installation, Configuration, Implementation and Maintenance of Hardware, Software and Other items in CANARA BANK for consolidating the Databases using Oracle Real Application Cluster (RAC):</u>	1.1. Bank shall provide the address and contact details for delivery of required Hardware/software & other items as mentioned in Technical Specifications (Details provided elsewhere in the document) while placing the order. Delivery of all hardware, Software and Other Items should be <u>within 6 weeks</u> from the date of acceptance of the Purchase Order for non-road permit locations. It will be the sole responsibility of the vendor to submit any form required for release of shipment from the check post.	Please change to " 1 . 1 . Bank shall provide the address and contact details for delivery of required Hardware/software & other items as mentioned in Technical Specifications (Details provided elsewhere in the document) while placing the order. Delivery of all hardware, Software and Other Items should be <u>within 8 weeks</u> from the date of acceptance of the Purchase Order for non-road permit locations. It will be the sole responsibility of the vendor to submit any form required for release of shipment from the check post.	Bidder to comply with RFP terms.
4	15	<u>Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)</u>	<u>1. Supply, Installation, Configuration, Implementation and Maintenance of Hardware, Software and Other items in CANARA BANK for consolidating the Databases using Oracle Real Application Cluster (RAC):</u>	1.2. Bidder should ensure installation, configuration, integration, Implementation and commissioning of the delivered Hardware & Software and other items for consolidating the Databases using Oracle Real Application Cluster (RAC) and complete all the works specified in the Scope of Work at the bank branch/office <u>within 10 weeks</u> from the date of delivery of all the materials for each ordered locations.	Please change to " 1 . 2. Bidder should ensure installation, configuration, integration, Implementation and commissioning of the delivered Hardware & Software and other items for consolidating the Databases using Oracle Real Application Cluster (RAC) and complete all the works specified in the Scope of Work at the bank branch/office <u>within 14 weeks</u> from the date of delivery of all the materials for each ordered locations."	Bidder to comply with RFP terms.
5	16	<u>Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)</u>	<u>4. Uptime:</u>	4.1. The bidder shall guarantee a 24x7x365 availability with monthly uptime of 99.00% for the solution as specified in Annexure-7 and Annexure-8, during the period of the Contract and also during AMC/ATS, if contracted, which shall be calculated on monthly basis.	In order to maintain 24X7X365 availability and 24X7 support, bidder suggest to go with RHEL premium subscriptions : Bidder assumes that all the RHEL installations will be on bare metal servers with upto two CPU sockets.	Bidder to comply with RFP terms. (Please Refer Annexure-7 B. Technical Specifications of Software.)

6	17	Section-C <u>DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)</u>	<p><u>5. Penalties/Liquidated Damages:</u> <u>5.1. Penalties/Liquidated damages for delay in Supply, Installation, Configuration, Implementation and Maintenance of Hardware, Software and Other items for consolidating the Databases using Oracle Real Application Cluster (RAC) would be as under:</u></p>	<p>5.1.1. Non-compliance of the Supply/delivery as per clause (1.1) will result in the Bank imposing penalty of <u>0.50%</u> on delay in delivery per week or part thereof (Plus GST), on the invoice value (exclusive of Taxes).</p>	<p>Request Bank to change it to : Non-compliance of the Supply/delivery as per clause (1.1) will result in the Bank imposing penalty of <u>0.25%</u> on delay in delivery per week or part thereof (Plus GST), on the invoice value (exclusive of Taxes).</p>	<p>Bidder to comply with RFP terms.</p>
7	17	Section-C <u>DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)</u>	<p><u>5. Penalties/Liquidated Damages:</u> <u>5.1. Penalties/Liquidated damages for delay in Supply, Installation, Configuration, Implementation and Maintenance of Hardware, Software and Other items for consolidating the Databases using Oracle Real Application Cluster (RAC) would be as under:</u></p>	<p>5.1.2. Non-Compliance of the Installation, configuration, implementation as per clause (1.2) will result in the Bank imposing penalty of <u>0.50%</u> on delay on installation per week or part thereof (Plus GST), on the invoice value (exclusive of Taxes)</p>	<p>Request Bank to change it to : Non-Compliance of the Installation, configuration, implementation as per clause (1.2) will result in the Bank imposing penalty of <u>0.25%</u> on delay on installation per week or part thereof (Plus GST), on the invoice value (exclusive of Taxes)</p>	<p>Bidder to comply with RFP terms.</p>
8	17	Section-C <u>DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)</u>	<p><u>5. Penalties/Liquidated Damages:</u> <u>5.1. Penalties/Liquidated damages for delay in Supply, Installation, Configuration, Implementation and Maintenance of Hardware, Software and Other items for consolidating the Databases using Oracle Real Application Cluster (RAC) would be as under:</u></p>	<p>5.1.3. However, the total Penalty/LD to be recovered under above clause 5.1.1 and 5.1.2 shall be restricted to <u>10%</u> of the total value of the order Plus GST (exclusive of Taxes).</p>	<p>Request Bank to change it to : However, the total Penalty/LD to be recovered under above clause 5.1.1 and 5.1.2 shall be restricted to <u>5%</u> of the total value of the order Plus GST (exclusive of Taxes).</p>	<p>Bidder to comply with RFP terms.</p>



9	17	Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)	5. Penalties/Liquidated Damages:	<p>5.1. Penalties/Liquidated damages for delay in Supply, Installation, Configuration, Implementation and Maintenance of Hardware, Software and Other items for consolidating the Databases using Oracle Real Application Cluster (RAC) would be as under:</p> <p>5.1.1. Non-compliance of the Supply/delivery as per clause (1.1) will result in the Bank imposing penalty of <u>0.50%</u> on delay in delivery per week or part thereof (Plus GST), on the invoice value (exclusive of Taxes).</p> <p>5.1.2. Non-Compliance of the Installation, configuration, implementation as per clause (1.2) will result in the Bank imposing penalty of <u>0.50%</u> on delay on installation per week or part thereof (Plus GST), on the invoice value (exclusive of Taxes)</p> <p>5.1.3. However, the total Penalty/LD to be recovered under above clause 5.1.1 and 5.1.2 shall be restricted to <u>10%</u> of the total value of the order Plus GST (exclusive of Taxes).</p>	<p>Please change to "5. 1 . Penalties/Liquidated damages for delay in Supply, Installation, Configuration, Implementation and Maintenance of Hardware, Software and Other items for consolidating the Databases using Oracle Real Application Cluster (RAC) would be as under:</p> <p>5. 1 . 1 . Non-compliance of the Supply/delivery as per clause (1 . 1) will result in the Bank imposing penalty of <u>0.25%</u> on delay in delivery per week or part thereof (Plus GST), on the invoice value (exclusive of Taxes).</p> <p>5. 1 . 2. Non-Compliance of the Installation, configuration, implementation as per clause (1.2) will result in the Bank imposing penalty of <u>0.25%</u> on delay on installation per week or part thereof (Plus GST), on the invoice value (exclusive of Taxes)</p> <p>5. 1 . 3. However, the total Penalty/ LD to be recovered under above clause 5.1 .1 and 5.1 .2 shall be restricted to <u>5%</u> of the total value of the order Plus GST (exclusive of Taxes).</p>	Bidder to comply with RFP terms.
10	18	Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)	5. Penalties/Liquidated Damages: 5.2. Penalties/Liquidated damages for not maintaining uptime:	<p>5.2.2. The maximum penalty levied shall not be more than the <u>50%</u> of AMC/ATS amount payable for one year (plus GST).</p>	<p>Request Bank to change it to : The maximum penalty levied shall not be more than the <u>10%</u> of AMC/ATS amount payable for one year (plus GST).</p>	Bidder to comply with RFP terms.
11	18	Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)	5. Penalties/Liquidated Damages: 5.2. Penalties/Liquidated damages for not maintaining uptime:	<p>5.2.3. If monthly uptime is less than 95%, the Bank shall levy penalty as above and shall have full right to terminate the contract under this RFP or AMC/ATS, if contracted. The right of termination shall be in addition to the penalty. The above penalty shall be deducted from any payments due to the bidder (including AMC/ATS payments).</p>	<p>Request Bank to change it to : Since Bank will levy penalty for any such delay hence request bank not to terminate the contract.</p>	Bidder to comply with RFP terms.
12	19	Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)	6. Payment Terms:		<p>We request : 60% against delivery of hardware and software and documents like delivery sign off and invoice with products serial number need to supplied 20% against successful installation, configuration and implementation of hardware and software 10% after project acceptance and sign off from bank 10% after warranty period and detuting applicable penalties and LD</p>	Bidder to comply with RFP terms.
13	19	Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)	6. Payment Terms:		<p>Request Bank to change it to :</p> <p>i) 50% After complete delivery of Hardware, Software and other items on production of relevant documents like delivery signoff and invoice with product serial number of the items supplied.</p> <p>ii) 40% After successful installation, configuration and implementation of Hardware, Software & other items supplied as per Scope of Work and Technical requirements. The invoice and installation report should contain the product serial number of the items supplied.</p> <p>iii) 10% After Project acceptance and Sign off by the Bank on production of relevant documents.</p>	Bidder to comply with RFP terms.

14	19	<u>Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)</u>	<u>6. Payment Terms:</u>		Please change this to 70% ag Supply and Delivery of Hardware, Software other items	Bidder to comply with RFP terms.
15	19	<u>Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)</u>	<u>6. Payment Terms:</u>		Please change this to 20% ag Installation, configuration and implementation of Solution as per scope of work & Acceptance of Project Sign off	Bidder to comply with RFP terms.
16	19	<u>Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)</u>	<u>6. Payment Terms:</u>		Please change this to as submission of 10 % PBG	Bidder to comply with RFP terms.
17	20	<u>Section-C DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)</u>	<u>7. Support:</u>	7.2. Bidder will be responsible for attending complaints during all hours 24*7 basis of Contract Period.	In order to maintain 24X7X365 availability and 24X7 support, bidder suggest to go with RHEL premium subscriptions : Bidder assumes that all the RHEL installations will be on bare metal servers with upto two CPU sockets.	Bidder to comply with RFP terms. (Please Refer Annexure-7 8. Technical Specifications of Software.)
18	5	<u>Section-D BID PROCESS</u>	<u>7. Earnest Money Deposit (EMD)/Bank Guarantee in lieu of EMD</u>	7.1. The bidder shall furnish Non interest earning Earnest Money Deposit (EMD) amount as mentioned in the Bid Schedule by way of Demand Draft drawn on any Scheduled Commercial Bank in India in favour of Canara Bank, payable at Bengaluru and should be kept along with the Part-A-Conformity to Eligibility Criteria.	Request Bank to change it to : The bidder shall furnish non-interest earning Earnest Money Deposit (EMD) of Rs. 5,00,000/- (Rupees Five Lakhs Only) by way of Demand Draft drawn on any scheduled commercial Bank in India in favour of Canara Bank, payable at Bengaluru and should be kept along with the Part-A- Conformity to Eligibility Criteria.	Bidder to comply with RFP terms.
19	2	<u>Section-F Ownership & Awarding of Contract</u>	<u>8. Security Deposit / Performance Bank Guarantee</u>	8.1. The successful bidder should submit a Security Deposit / Performance Guarantee as specified in Bid Schedule within 15 days from the date of acceptance of the Order or within 21 days from the date of issue of Purchase Order.	Request Bank to change it to : The successful bidder should submit a security deposit/ Performance Guarantee for 15% of total value of the contract within 15 days from the date of acceptance of the order or within 21days from the date of issue of purchase order. Bank has asked for total 20% PBG in this tender. 10% PBG on receiving the PO and additional 10% PBG to get the last 10% payment. Hence we request Bank to amend this term.	Bidder to comply with RFP terms.
20	2	<u>Section-F Ownership & Awarding of Contract</u>	<u>8. Security Deposit / Performance Bank Guarantee</u>	8.2. If the Security Deposit /Performance Guarantee is not submitted within the time stipulated above, penalty at <u>0.50%</u> for each completed calendar week of delay or part thereof on the value of the order (Exclusive of Taxes) plus GST will be deducted from the delivery payment or from any other payments for the delay in submission of Bank Guarantee. The total penalty under this clause shall be restricted to 5% of the total order value (Exclusive of Taxes) plus GST.	Request Bank to change the clause : If the Security Deposit /Performance Guarantee is not submitted within the time stipulated above, penalty at <u>0.20%</u> (Plus GST) for each completed calendar week of delay or part thereof on the cost of the order will be deducted from the delivery payment or from any other payments for the delay in submission of Bank Guarantee. The total penalty under this clause shall be restricted to 2% (Plus GST) of the total order value (Exclusive of Tax).	Bidder to comply with RFP terms.

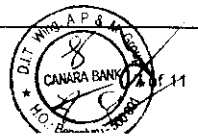
21	35		<p><u>Annexure-2</u> <u>Eligibility Criteria Declaration</u></p>	<p><u>c. Eligible Criteria:</u> The Bidder should have minimum turnover of Rs. 15.00 Crores each year for the last three financial years (i.e. 2016-17, 2017-18 and 2018-19) from Indian Operations. This must be the individual company turnover and not of any group of companies.</p> <p><u>Documents to be submitted for Eligibility Criteria Compliance</u> Bidder has to submit copies of Balance Sheet for last 3 Years [i.e. 2016-17 (audited), 2017-18 (audited) and 2018-19 (audited/provisional)]. AND Bidder must produce a certificate from the Company's Chartered Accountant to this effect.</p> <p>The documents certified by Chartered Accountants should mandatorily contain Unique Document Identification Number.</p>	<p>Please change to " Bidder can provide Unaudited Balance sheets for year 2018-2019"</p>	<p>Bidder to comply with RFP terms.</p>
22	36		<p><u>Annexure-2</u> <u>Eligibility Criteria Declaration</u></p>	<p><u>d. Eligible Criteria:</u> The Bidder should have Positive Net Worth as on 31/03/2019.</p> <p><u>Documents to be submitted for Eligibility Criteria Compliance</u> The Bidder must produce a certificate from the Company's Chartered Accountant to this effect.</p> <p>The documents certified by Chartered Accountants should mandatorily contain Unique Document Identification Number.</p>	<p>Please change to " Bidder can provide Unaudited Balance sheets for year 2018-2019"</p>	<p>Bidder to comply with RFP terms.</p>
23	36		<p><u>Annexure-2</u> <u>Eligibility Criteria Declaration</u></p>	<p><u>f. Eligible Criteria:</u> Bidder Should have supplied installed and maintained SSD based all flash array (AFA) Storage of 50TB usable capacity in single array in at least One Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India in the last two Years as on RFP date.</p> <p><u>Documents to be submitted for Eligibility Criteria Compliance</u> The Bidders has to provide order copy/reference Letter in their name from any Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India duly mentioning the hardware and software with make, model and capacity of the solution to this effect.</p>	<p>1.)we request you to change Bidder/OEM for all flash 50TB storage in single array . 2.) Or we request you to change all fash/ hybrid storage 50TB capacity</p>	<p><u>RFP Clause is modified as under:</u></p> <p><u>f. Eligible Criteria:</u> Bidder Should have supplied installed and maintained <u>SAN Storage of 30TB usable capacity of SSD in single array pool</u> in at least One Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India in the last two Years as on RFP date.</p> <p><u>Documents to be submitted for Eligibility Criteria Compliance:</u> The Bidders has to provide order copy/reference Letter in their name from any Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India duly mentioning the hardware and software with make, model and capacity of the solution to this effect.</p>

24	36	<u>Annexure-2</u> <u>Eligibility Criteria Declaration</u>	<p><u>f. Eligible Criteria:</u> Bidder Should have supplied installed and maintained SSD based all flash array (AFA) Storage of 50TB usable capacity in single array in at least One Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India in the last two Years as on RFP date.</p> <p><u>Documents to be submitted for Eligibility Criteria Compliance</u> The Bidders has to provide order copy/reference Letter in their name from any Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India duly mentioning the hardware and software with make, model and capacity of the solution to this effect.</p>	Request Bank to change it to : Bidder Should have supplied installed and maintained SSD based all flash array (AFA) Storage of 50TB usable capacity in single array in at least One Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India in the last five Years as on RFP date.	<p><u>RFP Clause is modified as under:</u></p> <p><u>f. Eligible Criteria:</u> Bidder Should have supplied installed and maintained <u>SAN Storage of 30TB usable capacity of SSD in single array pool</u> in at least One Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India in the last two Years as on RFP date.</p> <p><u>Documents to be submitted for Eligibility Criteria Compliance:</u> The Bidders has to provide order copy/reference Letter in their name from any Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India duly mentioning the hardware and software with make, model and capacity of the solution to this effect.</p>
25	36	<u>Annexure-2</u> <u>Eligibility Criteria Declaration</u>	<p><u>f. Eligible Criteria:</u> Bidder Should have supplied installed and maintained SSD based all flash array (AFA) Storage of 50TB usable capacity in single array in at least One Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India in the last two Years as on RFP date.</p> <p><u>Documents to be submitted for Eligibility Criteria Compliance</u> The Bidders has to provide order copy/reference Letter in their name from any Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India duly mentioning the hardware and software with make, model and capacity of the solution to this effect.</p>	Please change to " Bidder /OEM " Should have supplied installed and maintained SSD based all flash array (AFA) Storage of 50TB usable capacity in single array in at least One Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India in the last two Years as on RFP date.	<p><u>RFP Clause is modified as under:</u></p> <p><u>f. Eligible Criteria:</u> Bidder Should have supplied installed and maintained <u>SAN Storage of 30TB usable capacity of SSD in single array pool</u> in at least One Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India in the last two Years as on RFP date.</p> <p><u>Documents to be submitted for Eligibility Criteria Compliance:</u> The Bidders has to provide order copy/reference Letter in their name from any Schedule Commercial Bank, Public Sector Organization, Private Sector Organization, Government Organization in India duly mentioning the hardware and software with make, model and capacity of the solution to this effect.</p>
26	38	<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	3. Processors : Minimum 2 Socket Processors of 2nd gen Intel Xeon Scalable Processor family with minimum 12 cores per socket, with minimum 24MB Cache and minimum 3.70 GHz Turbo frequency) and should be VT enabled.	Can it be 16C, 3.9 Turbo Frequency (CLX-SP 5218 16C/32T 2.3G 22M 10.4GT 2UPI)?	Bidder to comply with RFP terms.
27	38	<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	3. Processors : Minimum 2 Socket Processors of 2nd gen Intel Xeon Scalable Processor family with minimum 12 cores per socket, with minimum 24MB Cache and minimum 3.70 GHz Turbo frequency) and should be VT enabled.	Processors: Minimum 2 Socket Processors of 2nd gen Intel Xeon Scalable Processor family with minimum 24 cores per socket, with minimum 36MB Cache and minimum 3.9GHz Turbo frequency and should be VT enabled. Or 192 Core of Latest 2nd generation Intel Processor with 3.9Ghz Turbo frequency clock speed on Optimised integrated systems for Oracle Database.	Bidder to comply with RFP terms.



Pre Bid Queries and Replies for RFP 10/2019-20 dated 20/06/2019 for Supply, Installation, Configuration, Implementation and Maintenance of Hardware, Software and Other Items in Canara Bank

28	38		<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	3. Processors : Minimum 2 Socket Processors of 2nd gen Intel Xeon Scalable Processor family with minimum 12 cores per socket, with minimum 24MB Cache and minimum 3.70 GHz Turbo frequency) and should be VT enabled.	Please provide the scalability required within the server by adding CPU. (4 Socket/8 Socket/ 16Socket)	Bidder to comply with RFP terms.
29	38		<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	3. Processors : Minimum 2 Socket Processors of 2nd gen Intel Xeon Scalable Processor family with minimum 12 cores per socket, with minimum 24MB Cache and minimum 3.70 GHz Turbo frequency) and should be VT enabled.	1. Technical Specifications for Servers : - Point -1 - Processors - Please note in the 2nd Gen of Intel Xeon Scalable Processor family with minimum 12 cores per socket, the max clock speed is 3.3GHz and not 3.70 GHz.	Bidder to comply with RFP terms.
30	38		<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	5. RAM : Minimum 32GB Per Core DDR4 with 2666 MHz and upgradable up to at least 1TB.	RAM - 24DIMM Slots to be added - this is to ensure all OEMs are quoting equivalent products.	Bidder to comply with RFP terms.
31	39		<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	6. HDD : Minimum usable 1TB SSD Disk in RAID 10 of higher capacity hot swappable disks	SSDs are available in 480 or 960GB Capacity. Achieving 1TB Capacity is in RAID10 is difficult. We can achieve upto 850GB. Is it acceptable? Also can we use RAID 1 for this calculation ?	<u>RFP Clause is modified as under:</u> 6. HDD: Minimum SSD Size of 800 GB in RAID 10 Configuration along with one extra disk for fault tolerance. All disks should be configured in Hot Swappable configuration.
32	39		<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	6. HDD: Minimum usable 1TB SSD Disk in RAID 10 of higher capacity hot swappable disks	HDD: Minimum usable 1TB SAS 10 KRPM or 800GB SAS SSD Disk in RAID 10 of higher capacity hot swappable disks	<u>RFP Clause is modified as under:</u> 6. HDD: Minimum SSD Size of 800 GB in RAID 10 Configuration along with one extra disk for fault tolerance. All disks should be configured in Hot Swappable configuration.
33	39		<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	7. HDD Bays: 2.5" backplane with minimum 8 drives	What is it meant with 2.5" backplane? Can it be 2.5" or 3.5"?	Bidder to comply with RFP terms.
34	39		<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	9. NIC: Minimum 4Nos of 10GBASE-T Ports and 4Nos of 1GBE for Network Connectivity (ports should be compatible for connecting to propose CISCO switches for private zone connectivity and Bank existing CISCO Nexus 9000 series switches for public zone connectivity)	NIC: Minimum 6Nos of 10GBASE-T Ports and atleast one 1GBE Management port for Network Connectivity (ports should be compatible for connecting to propose CISCO switches for private zone connectivity and Bank existing CISCO Nexus 9000 series switches for public zone connectivity)	Bidder to comply with RFP terms
35	39		<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	10. FC HBA: Minimum 4 Nos of 16Gbps FC Host Bus Adapters (HBA) Ports for SAN Connectivity to support proposed NVMe based storage.	Please clarify if it can be 2 Nos. x dual-port 16G FC HCA.	<u>RFP Clause is modified as under:</u> 10. FC HBA: Minimum 4 Nos of 16Gbps FC Host Bus Adapters (HBA) Ports for SAN Connectivity to support proposed Enterprise SAN storage. However all four FC ports should not be part of one quad port PCI Adapter.
36	39		<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	10. FC HBA : Minimum 4 Nos of 16Gbps FC Host Bus Adapters (HBA) Ports for SAN Connectivity to support proposed NVMe based storage.	Please confirm if the number of 2 Nos of HBA Adapters providing 4 FC HBA ports is acceptable.	<u>RFP Clause is modified as under:</u> 10. FC HBA: Minimum 4 Nos of 16Gbps FC Host Bus Adapters (HBA) Ports for SAN Connectivity to support proposed Enterprise SAN storage. However all four FC ports should not be part of one quad port PCI Adapter.
37	39		<u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u>	14. OS & Hypervisor Certification: Support for All Kind of x86 & x86_64 (Windows Server 2016, 2019, Redhat Linux 7 & 8), Hypervisor Support (ESXI & Hyper-V)	OS & Hypervisor Certification: Certified for All Kind of x86 Et x86_64 (Windows Server 2016, 2019, Redhat Linux 7 Et 8 or Oracle Linux), Hypervisor Support (ESXI Et Hyper-V, Nutanix or Oracle VM)	<u>RFP Clause is modified as under:</u> 14. OS Certification: Support for Redhat Linux 7 or later / OEL 7 or later.



38	39		<p><u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u></p>	<p><u>22. Warranty and Support</u> 03 Years, Comprehensive, On-Site Support Warranty including part replacement/repairs within 4 hours of reporting, and Software support for updates, upgrades, patches, and bug fixes for supplied s/w from OEM 24 x 7 x 365 days. SSD drives should be covered for irrespective of read/writes on them. In case of Disk failure, the faulty disk will be maintained /destroyed by Canara Bank. Proactive Server monitoring & support from OEM should be enabled. The proposed bidder will need to ensure support of product & change of components @ zero cost in case of any part becoming obsolete/EOL & EOS.</p>	<p>We request to change 6hrs of resolution/ reporting time because all OEM giving 6hrs CTR</p>	<p>Bidder to comply with RFP terms</p>
39	39		<p><u>Annexure-7</u> <u>A. Technical Specifications of Servers (8 Nos. at DC and 8 Nos. at DRC):</u></p>	<p>22. Warranty and Support : 03 Years, Comprehensive, On-Site Support Warranty including part replacement/repairs within 4 hours of reporting, and Software support for updates, upgrades, patches, and bug fixes for supplied s/w from OEM 24 x 7 x 365 days. SSD drives should be covered for irrespective of read/writes on them. In case of Disk failure, the faulty disk will be maintained /destroyed by Canara Bank. Proactive Server monitoring & support from OEM should be enabled. The proposed bidder will need to ensure support of product & change of components @ zero cost in case of any part becoming obsolete/EOL & EOS.</p>	<p>Please note only a couple of OEMs can provide 4 hours CTR. Request is to please change this to a 6 Hour CTR for all OEMs to be on a level playing field.</p>	<p>Bidder to comply with RFP teams</p>
40	41		<p><u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u></p>	<p>3. Type : SSD based all flash array (AFA) storage</p>	<p>Storage shall support SSD & HDD Drives. However the required capacity shall be offered with full SSD.</p>	<p><u>RFP Clause is modified as under:</u> 3. Type : Enterprise SAN Storage with SSDs. (However the required Minimum 30TB Usable capacity should be in SSD configuration only).</p>
41	40		<p><u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u></p>	<p>4. Replication: 2way native replication with zero data loss (Synchronous replication mode)</p>	<p>there is no mention of 3rd site hence pls. remove this clause. Further Pls clarify what type of data and the replication methodology.</p>	<p>Bidder to comply with RFP terms</p>
42	40		<p><u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u></p>	<p>5. Controller : Storage should have minimum dual active-redundant, hot swappable controllers for high availability, load balancing and redundant modes.</p>	<p>Please provide required scalability of Controller within the same array.</p>	<p>Bidder to comply with RFP teams</p>
43	41		<p><u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u></p>	<p>9. Form Factor : Upto 3U</p>	<p>Request you to relax this point as every OEM have different form factor Disk controller and Disk Drive Enclosure.</p>	<p>Bidder to comply with RFP terms</p>



44	41	<u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u>	11. Performance : Capable of delivering sustained minimum 2GB/s throughput and 300,000 IOPS in (70:30) ratio with Microsecond response time in fully populated capacity in single hardware array.	Since the bank asked for 300,000 IOPS on fully populated array, kindly also mention " storage shall atleast suport minimum 900 Drives "	RFP Clause is modified as under: 11. Performance : Capable of delivering sustained minimum 2GB/s throughput and minimum <u>100,000 IOPS</u> in (70:30) ratio with Millisecond response time in fully populated capacity in single hardware array <u>pool</u> . <u>The bidder is required to show performance matrix on proposed storage, however if workload is less to produce the asked performance then bidder has to produce OEM documentry proof for getting required performance.</u>
45	41	<u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u>	12. RAID Support: RAID array supporting 0, 1, 5, 6, 10 or better levels. It should support a mix and match of RAID levels behind a pair of controllers. The storage array should allow online expansion of existing RAID Groups / Storage Disk Pools.	RAID Support: RAID array supporting 0, 1, 5, 6, 10 or better levels. Or Recommended RAID levels from Database vendor like mirroing (Double or Triple mirroring). It should support a mix and match of RAID levels behind a pair of controllers. The storage array should allow online expansion of existing RAID Groups / Storage Disk Pools.	Bidder to comply with RFP terms
46	41	<u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u>	13. Encryption : Should have native encryption capabilities as per PCI DSS standards and encryption should not add any performance overheads and key management should be part of offered solution.	Request Bank to change: should have native encryption capabilities as per PCI DSS standards or FIPS standard and encryption should not add any performance overheads	Bidder to comply with RFP terms
47	42	<u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u>	17. Operating System Support : Support for multiple Operating Systems connecting to it, including but not restricted to Windows 2012 or later, UNIX (AIX Et Solaris), Linux(Redhat 6 & 7 (all versions), SUSE & OEL), Hypervisor (vSphere & Hyper V)	Support for multiple Operating Systems connecting to it, including but not restricted to Windows 2012 or later, Linux(Redhat 6 Et 7 (all versions), SUSE Et OEL), NFS support for all Operating systems including UNIX (AIX or Solaris)	Bidder to comply with RFP terms
48	42	<u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u>	18. Ports : Minimum 8 number of FC Ports of 16 Gbps each, Minimum 2 Number of Gigabit for IP Traffic and 2 Number of 10 Gbps for Replication. Minimum 8 number of Suitable FC Cable of minimum 35 Meters length each.	Kindly help amend as " Minimum 8 number of FC Ports of 16 Gbps each, minimum 2 number of 10G for IP Traffic and 2 number of 1Gbps for Replication". Please note " In most of the mid range storage array the replication ports are limited to 1Gbps". Hence request for the same.	Bidder to comply with RFP teams
49	42	<u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u>	18. Ports : Minimum 8 number of FC Ports of 16 Gbps each, Minimum 2 Number of Gigabit for IP Traffic and 2 Number of 10 Gbps for Replication. Minimum 8 number of Suitable FC Cable of minimum 35 Meters length each.	Please clarify 2 Number of Gigabit for IP Traffic is for Management traffic ? If not what is the purpose of these ports?	Bidder to comply with RFP terms



50	42		<p><u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u></p>	<p>19. Software : Management software must include both GUI and CLI tools. Management of the storage system should be through single management tool. The GUI must be able to configure all features, monitor the status and health of the storage system. If licensed, separately, the vendor needs to provide necessary licenses for full capacity. Vendor should provide storage array management software for configuration, administration and monitoring. Vendor shall offer the enterprise version of the software if there are multiple versions of the software. Software shall be able to manage all arrays of the same family. The performance monitoring should be real-time and historical providing IOPS response time and utilization of individual components within the storage array. Log Maintenance facility should be available. Storage should be compatible to integrate with Bank monitoring tool</p>	<p>Please provide details of Bank monitoring tool to check the integration.</p>	<p>Details will be informed to selected bidder, however proposed storage should support SNMP protocol for integration.</p>
			<p><u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u></p>	<p>21: Other Features : The proposed storage system should support SNMP, Address resolution protocol, Network Time Protocol, LDAP, Network Lock Manager. The Storage array should be licensed with Software to manage Primary and DR sites from a single console.</p>		<p>RFP Clause is modified as under: 21: Other Features : The proposed storage system should support SNMP, Network Time Protocol, LDAP. The Storage array should be licensed with Software to manage Primary and DR sites from a single console. Performance monitoring tools should be offered with the storage array.</p>
51	43		<p><u>Annexure-7</u> <u>C. Technical Specifications of Enterprise Higher Range SAN Storage (1 Nos. at DC and 1 Nos. at DRC):</u></p>	<p>Performance monitoring tools should be offered with the storage array. The proposed storage system shall support a browser based GUI built in management. The proposed storage should be able to virtualize under VMware environment. The proposed storage should be able to create multiple array pools so that same storage can be used for server virtualization and for database pools.</p>	<p>Some of the features requested here are for NFS(NAS) storage. Requested Storage is SAN with FC and iSCSI protocols. Please clarify if these protocols are mandatory?</p>	<p>The proposed storage system shall support a browser based GUI built in management. The proposed storage should be able to virtualize under VMware environment. The proposed storage should be able to create multiple array pools so that same storage can be used for server virtualization and for database pools.</p>
52	44		<p><u>Annexure-7</u> <u>D. Technical Specification of Network Switches (2 Nos. at DC and 2 Nos. at DRC):</u></p>	<p>1. Model: CISCO</p>	<p>request bank to include CISCO/Equivalent. Justifications: this is favoring to single OEM, kindly include Equivalent or market leading OEM's Like Juniper/Arista/Brocade etc., to offer competitive bid.</p>	<p>Bidder to comply with RFP terms</p>
53	48		<p><u>Annexure-8</u> <u>Scope of Work</u></p>	<p>5. The Scope of the work is for Supply, Installation, Configuration, Implementation and Maintenance of proposed Solution.</p>	<p>We assume that bidder's scope is limited to vanilla OS installation and Server connectivity with LAN and SAN switches only. No Application, DB related configurations are in the scope. Configurations required for DC & DR will be done by existing Bank's SI. Please clarify.</p>	<p>Bidder to comply with RFP terms (Please Refer RFP clause 9.7 of Section-B)</p>
54	49		<p><u>Annexure-8</u> <u>Scope of Work</u></p>	<p>20. Bidder is responsible for health monitoring of the supplied Hardware & Software and other items.</p>	<p>We assume the monitoring solution for the same will be provided by Bank. Bidder will monitor the supplied hardware through that software on the preventive maintenance frequencies. Please clarify.</p>	<p>RFP Clause is modified as under: 20. Bidder is responsible for <u>periodic preventive maintenance</u> of the supplied Hardware & Software and other items <u>to ensure the uptime.</u></p>
55	49		<p><u>Annexure-8</u> <u>Scope of Work</u></p>	<p>23. Bidder is responsible to provide the periodic reports of the proposed solution as per the bank requirement.</p>	<p>Please elaborate on types of reports with examples and we hope that these reports will be generated by the monitoring solution provided by bank.</p>	<p>RFP Clause stands deleted</p>

Pre Bid Queries and Replies for RFP 10/2019-20 dated 20/06/2019 for Supply, Installation, Configuration, Implementation and Maintenance of Hardware, Software and Other items in Canara Bank

56	49	<u>Annexure-8</u> <u>Scope of Work</u>	25. Bidder has to enable/configure event source so that the proposed solution can be integrated to Canara Bank Mail System.	We are not able to understand this in present context. Please elaborate.	RFP Clause stands deleted
57	49	<u>Annexure-8</u> <u>Scope of Work</u>	38. During installation if the bank requires any new Software/OS/Utility, Bidder has to install without any cost where the licenses of the software are with the Bank.	Please indicate what kind of software installation bank may require.	RFP Clause stands deleted
58			Model: APC Server Rack	Model: APC Server Rack or OEM	The subject Point is not part of RFP
59			Bank asking for 5years of Bank Gaurantee(BG) in intial and starting period	we are ready to give first 3year of Bank Gaurantte(BG) in intial and starting period Remaining 2 years will give before end of 3years	Bidder to comply with RFP terms

Date: 08/07/2019
Place: Bangalore


 Deputy General Manager

