

UCO BANK

Department of Information Technology

Request for Proposal (RFP) For Supply, Installation and Maintenance of Storage, Server and Oracle Database Software for MIS-ADF projectRFP REF NO:UCO/DIT/728/2016-17 Date: 27/07/2016 Pre-Bid Responses/ Clarifications to Queries raised by the Bidder(s), Amendments, Addendums and Corrigendum's

| SL. No | Pg No / Clause No | Terms & Conditions as per RFP | Queries/Suggestions by the Bidder (s) | Bank's Response (s) |
|-----------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| 1 | 26 | Part IV-Scope of Work , SI # 5 - Supply of servers with following minimum configurations - 512GB memory and scalable up to 1024GB | As the scability of Memory purely depend on the number of DIMMs slot and available DIMM capacity, request you to mention it as - 512 GB memories and scalable up to 768 GB. It will significantly reduce the cost and enable wider participation | |
| 2 | 26 | Part IV-Scope of Work , SI # 5 - Supply of servers with following minimum configurations - 2x300GB 15K RPM SAS 12Gbps Hard Drive | Request this to be CHANGED TO - 2 X 300GB 10/15K RPM SAS 2/3 HARD DRIVE to enable wider participation | Please refer revised Technical Specs in Part IV in page no. 8-11 |
| 3 | 27 | Part IV-Scope of Work , SI # 6 - Supply of storage devices DC with 25 TB and DR with 25 TB usable space with the following minimum configuration - 42 x 1.2TB 15K RPM for DC | 1.2TB 15K RPM OR AS PER ORACLE RECOMMENDATIONS TO RUN ORACLE | |

| 4 | 26/5-1 | Processor with 8 core and scalable up to 2 processor. | Should we quote 1 processor of 8-core or 2 processors adding to max. 8 cores | |
|---|------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| 5 | 26,27/6-1 | Storage usable capacity 25TB and scalable up to 50TB. | Should we stick to the following mentioned disk configuration or change as per this line | |
| 6 | 27/6-2 | 42 x 1.2TB 15K RPM for DC. | 1.2 TB HDDs are not available in 15K, max 600 GB capacity is available in 15K rpm | Please refer revised Technical Specs in Part IV in page no. 8-11 |
| 7 | 27/6-3 | 42 X 1.2TB 10K RPM for DR. | Mentioned number of disks doesn't have Spare disks - 25000/1200 = 21 * 2 = 42 after RAID 1. | |
| 8 | 26/5-5 27/6-5 | Supports RAID levels 0, 1, 10, 5, 6. | Please remove RAID 1 , as this is mainly implemented in Server inter disk, not in Storage systems - for that RAID 1+0 is most prevalent | |

| 9 | 27/6-6 | Redundant Storage controller and contains battery-backed cache. Controllers should operate in an active-active environment mirroring each other's cache. | Please mention the required Cache - 16 or 32 GB across dual controllers | Please refer revised Technical Specs in Part IV in page no. 8-11 |
|----|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 10 | 26/5-4 | Capable of connecting with SAN storage with redundancy | Do we quote with 1 x Dual-port FC HBA (Port level redundancy) or 2 x single port FC HBA (adapter level redundancy) | 16 Gbps FC Dual port HBA with appropriate cables |
| 11 | 26/5-7 | 2x10GB Lan card. | Please mention the 10G port type - Base-T or SFP+ | SPF 10Gig LRM |
| 12 | 27/6-7 | 12 no's FC port in redundant mode. | Are these ports are part of SAN Switch? If notPlease consider changing to 8 no's FC Host port across dual controllers | 8 no's FC Host port across dual controllers |
| 13 | 7/1.3 | Cost of Tender Document Rs. 20,000 (Rupees Ten Thousand only) | Cost of Tender Document Rs. 20,000 (Rupees Twenty Thousand only) | The amended clause is "Cost of Tender Document Rs. 20,000 (Rupees Twenty Thousand only)" |
| 14 | 10/1.7 | EMD is mentioned to be 10 Lac for Database and 10 Lac for Partitioning | It should be single figure | The amended clause is "the value of EMD is Rs 20.00 Lacs for Storage, Server and Oracle Database Software for MIS-ADF project. |

| 15 | 15/1.3 | In case of Software, 100% payment will be made against the delivery, installation and configuration. | 90% of the license fee plus first year ATS along with all applicable taxes will be paid upon delivery of the license and upon getting confirmation from Oracle about the ATS. Remaining 10% of the cost along with applicable taxes would be paid after completion of installation and Configuration. | The amended clause is "90 % payment will be made on delivery and 10 % on Go-Live. |
|----|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16 | | For Hardware items 90% of the order value along withapplicable taxes on actual basis will be paid on successful user acceptance after delivery, installation and commissioning of the ordered items, after realizing penalty charges for late delivery and / or late installation, if any. The claim for paymentshould contain proof of delivery, installation note & User Acceptance Report signed with date by an authorized official of UCO Bank at the respective sites, original Octroi receipt, waybill etc. | For Hardware items 90% of the order value along with applicable taxes on actual basis will be paid on delivery. Remaining 10% of the cost along with applicable taxes would be paid after successful user acceptance, installation and commissioning of the ordered items, after realizing penalty charges for late delivery and / or late installation, if any. The claim for payment should contain proof of delivery, installation note & User Acceptance Report signed with date by an authorized official of UCO Bank at the respective sites, originalOctroi receipt, waybill etc. | The amended clause is "70% payment will be made on delivery and 30% after 3 Months of successful installation, configuration and go-live. |
| 17 | 23/2.1 | The bidder should have completed similar work of supply, installation and maintenance of similar type of server and storage in a PSB in India in the last 3 (three year) from the date of publishing of this tender. | The bidder should have completed similar work of supply and installation of similar type of server and storage in a PSB in India in the last 5 (Five years) from the date of publishing of this tender. | The clause is amended to read as "The bidder should have completed similar work of supply, installation and maintenance of similar type of server and storage in a PSB/ Govt. /PSU in India in the last 4 (Four year) from the date of publishing of this tender." |

| 18 | 49/Annexure H | Commercial Response Format | As per Clause 1.29 on Page No. 15, Price should inclusive of all applicable Taxes. Tax break-up should be asked to be shown. | The Clause 1.29 refers that TCO (Total Cost of Ownership) includes unit price with applicable taxes. |
|----|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 19 | 23/2.1 Eligibility Criteria | The bidder should have completed similar work of supply, installation and maintenance of similar type of server and storage in a PSB in India in the last 3 (three year) from the date of publishing of this tender. | The bidder should have completed similar work of supply, installation and maintenance of similar type of server and storage in a PSB/Govt./PSU/Reputed Private Organisation in India in the last 3 (three year) from the date of publishing of this tender. | The clause is amended to read as "The bidder should have completed similar work of supply, installation and maintenance of similar type of server and storage in a PSB/ Govt. /PSU in India in the last 3 (three year) from the date of publishing of this tender." |
| 20 | 23/2.1 Eligibility Criteria | The bidder should be a Certified OPN Gold Partner of Oracle and should have prior experience of executing similar supply orders in BFSI segment in India. The bidder should be duly authorized by Oracle to supply Oracle products. | The bidder should be a Certified OPN Gold Partner of Oracle and should have prior experience of executing similar supply orders in BFSI segment /Govt./PSU/Reputed Private Organisation in India. The bidder should be duly authorized by Oracle to supply Oracle products. | The clause is amended to read as "the bidder should be a certified OPN Gold Partner of Oracle and should have prior experiences of executing similar supply orders in BFSI segment/Govt./PSU in India. The bidder should be duly authorized by Oracle to supply Oracle products. |

| 21 | 23/2.2 Eligibility Criteria | The bidder should have completed similar work of installation of Oracle DB of more than 1 TB data size in a DC/DR environment of a PSB in India in the last 1 (one year) from the date of publishing of this tender. The bidder should have at least 3 certified Oracle DBAs on their rolls. | The bidder should have completed similar work of installation of Oracle DB of more than 1 TB data size in a DC/DR environment of a PSB/Govt./PSU/Reputed Private Organisation in India in the last 1 (one year) from the date of publishing of this tender. | The clause is amended to read as "The bidder should have completed similar work of installation of Oracle DB of more than 1 TB data size in a DC/DR environment of a PSB/ Govt./PSU in India in the last 3 (three year) from the date of publishing of this tender. |
|----|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 22 | 23/2.3 Eligibility Criteria | The bidder should have completed similar work of installation of Oracle DB of more than 1 TB data size in a DC/DR environment of a PSB in India in the last 1 (one year) from the date of publishing of this tender. | Request to include Govt. & BFSI in PSB Clause as Oracle experience is irrespective of Industry & in all Database related projects where Oracle is used are critical/live environment only. Also, please do not limit the experience to 1 year & request to make within 3 years. Request to make 1 Certified Oracle DBA professional instead of 3. | The bidder should have completed similar work of installation of Oracle DB of more than 1 TB data size in a DC/DR environment of a PSB/Govt./PSU in India in the last 3 (three year) from the date of publishing of this tender. Clause stands as per RFP |

Note: The quantity mentioned above is only indicative and may change at the time of issuance of Purchase Order to the L-1 bidder. Supply of all associated hardware peripherals for the server and storage (e.g. cables etc.) will be the responsibility of the successful L-1 Bidder within the overall Total cost of ownership. (Please refer RFP page no. 27).

All the above activities should be performed with consultation with application vendor. Server, Storage and new SAN switch hardware and maintenance will be responsibility of selected vendor for a period of three year + 2 years AMC. OS maintenance will be responsibility of the successful bidder for five year. Data guard & Oracle database maintenance will be responsibility of existing application vendor. The Bidder has to Comply with "Yes" against each point and submit scope of work in separate sheet. Successful bidder has to obtain signoff after installation and configuration of the above activities. (Please refer RFP page no. 27).

<u>The Revised Technical Specifications for Server and Storage in Part IV is as below:</u> (Annexure-A)

| SI. No | | Description | Quantity |
|-----------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| | 2U Rack Server | | |
| | | Technical Specifications | |
| | Processors | 2 x 4-core latest generation server processor of atleast 3.50 GHz/higher with atleast 15 MB/higherL3 Cache | |
| | Chipset | Latest OEM chipset supporting an optimized for the above processor | |
| | Memory | RAM (min/max): 256 GB/512 GB DDR-4 ECC 2400 MHz RDIMM RAM | |
| | Hard Disk Drives | 2 x 600 H/S 10K rpm SAS Hard Disk Drives - upgradeable upto atleast 8 drives | |
| | HDD bays | HDD bays supporting SAS, SATA, SSD and SED drives | |
| | Optical Drive | Internal DVD-ROM drive | |
| | I/O slots | Atleast Six PCIe slots out of which atleast 2 PCIe 3.0 | |
| 1 | RAID levels | Support for RAID 0, 1, 5, 6, 10; with RAID controller with 512 MB NV Cache | 2 |
| | Network Interface | Atleast 4 10G ports | |
| | Graphics controller | Integrated Graphics with atleast 16MB Video Memory | |
| | Server Mgmt. | Server Management and Diagnostic Tool. | |
| | Ports | 5 USB 2.0 ports(2 each on rear and front, 1 internal), 1 Serial, keyboard, mouse, graphics (DB-15) | |
| | Storage Interconnect | 16 Gbps FC Dual port HBA with appropriate cables | |
| | Power supplies | Redundant Platinum rated efficient Power Supply (atleast 750 Watts each) to sustain above configuration. Power Supply with 80+ Gold certified for better utilization. | |

| | Cooling | Hot plug and redundant fans | |
|---|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| | Operating System | Factory Installed Windows Server 2012/Unix/Linux | |
| | Industry standard certifications | The quoted server models should have the following Certifications: Microsoft Windows Server2012 R2, Microsoft® Windows® HPC Server 2012, Novell SUSE Linux Enterprise Server, Red Hat Enterprise Linux, Sun Solaris, Microsoft® Windows Server® 2012 Hyper-V, VMware® ESXi Version 4.1, Citrix® XenServer 5 FCC, UL, ROHS. The server OEM must be figured in Leaders and challengers segment in latest Gartner's Magic Quadrant for servers. | |
| | Form factor | Max. 2U Rack form factor with sliding rails to fir into industry standard 19" Server Rack | |
| | Warranty | 3 Years On-site comprehensive warranty and 2 Years AMC . 4 hrs call-to-resolution warranty by OEM | |
| | 1 TO USABLE SPAC | e with the following minimum configuration: SAN Storage | |
| 2 | | Technical Specifications | 2 |
| | Controllers | Redundant, hot-pluggable Active-Active array Controller | |
| | Host Interface | 4 * 16 Gb FC, 4 * 10Gb iSCSI ports across dual controllers | |
| | Drive Interface | 4 device ports of SAS, 6 Gbps or higher per port | |
| | RAID Levels supported | 0, 5, 6, 10 or equivalent. | |
| | Fans and Power supplies | redundant, hot-swappable | |
| | Cache Memory | 32 GB across array Controllers | |

| Cache Protection | Cache should be mirrored between the Active-Active controllers (load balancing). The paths should be redundant (at least 2 paths) to prevent disruption if one path fails. Must support either Cache battery backup or any equivalent mechanism to safe guard data |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No single point of failure Architecture | Storage Array should be configured in a No-Single-Point- of-Failure Architecture. |
| OS Support | Industry leading Operating System platforms including: Windows Server® 2012, Windows 2012, Sun Solaris®, HP-UX®, IBM- AIX®, Linux® 2.6 and above, RHEL® (6,7), VMware®, Hyper-V®. |
| Protocols | FC, iSCSI |
| Storage Capacity | The Storage Array shall be offered with 12 TB Usable capacity using SAS 600 GB 15K drives with raid 1+0 configuration for DC site. Scalable upto 50 TB. In DR to be same configuration as DC. |
| Scalability | Storage should be scalable to atleast 100 disks or more, under the same pair of controllers by only adding hard disks + disk enclosures |
| Online LUN migration for flexibility of redeployment | The array should support online LUN migration (transparent movement of volumes within the array). The functionality should allow cross RAID migration and cross spindle migration (e.g.600GB SAS to NL SAS) |
| Data Progression | The storage array shall support Compression and De-duplication of data. |

| Controller software and Non-Disruptive Upgrade | Firmware should be upgradeable for functionality improvement and enhancements. Must support non- disruptive upgrade of core software, BIOS, snapshot, clone, remote mirroring and management software without shutting down the storage system. All host- attached servers must remain fully operational during system level or maintenance upgrade procedures. | |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Data-in-place upgrade | Must support data-in-place upgrade of existing storage controllers to a future generation controller. | |
| Information Life Cycle Management | The SAN must be able to provide automatic classification of data with third party products. Data must be automatically moved in a Bi-Directional manner. Software must be able to be managed within a single pane of Glass.Data must be moved at the block level. | |
| Software Licenses | Array should be supplied with licenses of Snap shots, Volume Copy, Thin provisioning and Auto Tiering. | |
| Storage based replication | Must support Synchronous and Asynchronous replication | |
| SAN Fabric | 2 x 24 ports SAN switches each with 12 x 16G ports activated | |
| Support | 3 Years On-site comprehensive warranty and 2 Years AMC. Vendor must offer 24x7x365 Hardware and Software support | |
| Supplied storage new San switch to | should be compatible with San Switch M/C Type 2498 Model 24E or be proposed. | 2 |

| SI No | Features | Offered Specification | Compliance (Yes) |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------|
| 1. | Supply and installation of Processor based Oracle Database Enterprise Edition with one year Annual Technical Support. | | |
| 2 | Supply and installation of Processor based Oracle Partitioning Option pack with one year Annual Technical Support. | | |
| 3 | Supply and installation of Processor based Oracle Diagnostic Pack Option with one year Annual Technical Support. | | |
| 4 | Supply and installation of Processor based Oracle Tuning Pack Option with one year Annual Technical Support. | | |
| 5. | Supply of servers with following minimum configurations. | | |
| а | 2 x 4-core latest generation server processor of atleast 3.50 GHz/higher with atleast 15 MB/higherL3 Cache | | |
| b | Redundant Platinum rated efficient Power Supply (atleast 750 Watts each) to sustain above configuration. Power Supply with 80+ Gold certified for better utilization. | | |
| С | RAM (min/max): 256 GB/512 GB DDR-4 ECC 2400 MHz RDIMM RAM | | |
| d | Capable of connecting with SAN storage with redundancy | | |
| е | Support for RAID 0, 1, 5, 6 , 10 ; with RAID controller with 512 MB NV Cache | | |
| f | 2 x 600 H/S 10K rpm SAS Hard Disk Drives - upgradeable upto atleast 8 drives | | |

| g | 2x10GB Lan card With USB Ports |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| h | 3 Years On-site comprehensive warranty and 2 Years AMC. 4 hrs call-to-resolution warranty by OEM |
| i | Support Windows, Linux Operating systems (Compatible with latest version of Oracle Database 11g,12c) |
| 6 | Supply of storage devices DC with 12 TB and DR with 12 TB usable space with the following minimum configuration |
| а | The Storage Array shall be offered with 12 TB Usable capacity using SAS 600 GB 15K drives with raid 1+0 configuration for DC site. Scalable upto 50 TB |
| b | The Storage Array shall be offered with 12 TB Usable capacity using SAS 600 GB 15K drives with raid 1+0 configuration for DR site. Scalable upto 50 TB. |
| С | Redundant Platinum rated efficient Power Supply (atleast 750 Watts each) to sustain above configuration. Power Supply with 80+ Gold certified for better utilization |
| d | Supports RAID levels 0, 1, 1+0, 5, 6. |
| е | Redundant Storage controller and contains battery-backed cache. Cache battery backup should be of minimum 24 hours. Controllers should operate in an active-active environment mirroring each other's cache. |
| f | 8 no's FC port in redundant mode. |
| g | 3 Years On-site comprehensive warranty and 2 Years AMC. Vendor must offer 24x7x365 Hardware and Software support |

Annexure-H (Revised Commercial Response Format)

TABLE-A

| SI | Item Description | quantity | Unit price | Applicable | Total price |
|----|---------------------------------------------------------------------------|----------------|------------|------------|-------------|
| No | | | | taxes | |
| I. | Supply and installation of Processor | As per Revised | | | |
| | based Oracle Database Enterprise | Technical | | | |
| | Edition with one year Annual Technical | Specification | | | |
| | Support. | 'Annexure A' | | | |
| 2. | Supply and installation of Processor | As per Revised | | | |
| | based Oracle Partitioning Option pack | Technical | | | |
| | with one year Annual Technical | Specification | | | |
| | Support. | 'Annexure A' | | | |
| 3. | Supply and installation of Processor | As per Revised | | | |
| | based Oracle Diagnostic Pack Option | Technical | | | |
| | with one year Annual Technical | Specification | | | |
| | Support. | 'Annexure A' | | | |
| 4. | Cupply and installation of Drocesser | As per Revised | | | |
| | Supply and installation of Processor based Oracle Tuning Pack Option with | Technical | | | |
| | | Specification | | | |
| | one year Annual Technical Support. | 'Annexure A' | | | |
| 5. | Any other item | | | | |
| | | | Total A | | |

TABLE-B

| SI | Item Description | quantity | Unit price | Applicable | 4 th Year | Applicable | 5 th Year | Applicable | Total Cost |
|----|-----------------------------|----------|------------|------------|----------------------|------------|----------------------|------------|------------|
| No | | | | Taxes | AMC | Taxes | AMC | Taxes | |
| | | | | | Cost | | Cost | | |
| 1. | Supply of servers with the | | | | | | | | |
| | minimum configuration | 02 | | | | | | | |
| | mentioned in scope of work | | | | | | | | |
| 2. | Supply of Storage devices | | | | | | | | |
| | with the minimum | 02 | | | | | | | |
| | configuration mentioned in | | | | | | | | |
| | scope of work | | | | | | | | |
| 3. | Supply of proposed San | | | | | | | | |
| | switch, if not compatible | 02 | | | | | | | |
| | with existing switch of the | | | | | | | | |
| | Bank | | | | | | | | |
| 4. | Any other item | | | | | | | | |
| | Any other item | | | | | | | | |
| | | Total B | | | | | | | |
| | | | | | | | | | |

| ITEM | AMOUNT (In Figure) | AMOUNT(In Words) |
|--------------------------------|--------------------|-------------------|
| TOTAL COST OF OWENERSHIP (A+B) | | |
| | | |

| Place: | Signature of Bidder: |
|--------|----------------------|
| Date: | Name : |

<u>Note:</u>

- 1. L1 Bidder will be determined based upon the lowest TCO quoted by the bidder.
- 2. In case of discrepancy between figures and words, the amount in words shall prevail
- 3. No increase in costs, duties, levies, taxes, charges etc. irrespective of reasons (including exchange rate fluctuations etc.)
- 4. Bidder should strictly quote in the format as mentioned above.
- 5. No counter condition/assumption in response to commercial bid will be accepted. Bank has a right to reject such bid.