

**Pre-Bid Queries for NIT No. RECPDCL/TECH/STORAGE-GED/e-Tender/2015-16/217 dated: 02.05.2015**

S. No.	Vendor	Item	Page No. / Clause No.	Parameter	Technical Specifications as per RFP	Queries / Modifications / Changes Suggested	Vendor's Remarks	RECPDCL Remarks	Change Category
1	M/s EMC & M/s Ricoh	Mandatory Requirements for OEM	22/2	Annual Turnover	The minimum average annual turnover of the OEM shall be Rs. 250 Crores in last 3 financial years (FY 2011-12, 2012-13 and 2013-14). Copy of Audited Balance Sheet and P&L Account for the respective financial years to be submitted in this regard	As a leading Global Technology OEM, the Financial results are available Online on the OEM Website. We would request you to accept the Publicly available Online Reference of the Financial Information.		Bid will be evaluated as per tender specification	No Change
2	M/s EMC & M/s Ricoh	Mandatory Requirements for OEM	22/3	Support Center	The OEM vendor shall have at least one service center within the Goa State with sufficient infrastructure.	We would request you to modify this as "The OEM vendor shall have Sufficient Support infrastructure in India".		The OEM vendor shall have at least one service center within the Goa or Karnataka or Maharashtra State with sufficient infrastructure.	Minor Change
3	M/s EMC & M/s Ricoh	Detailed Technical Specifications	36/Sec X, A.1	Central Storage	The DB Servers will have access to the common single Oracle/MS SQL/MY SQL /DB2 /Informix /Sybase database on an external storage through a switched Fiber Channel Storage Area Network (SAN). In case of any failure at DB Servers arising due to any of the reasons like hardware fault, Operating system, Database, Application process failures, etc., the offered Central storage must be able to remain attached to the fail-over server. The required multi pathing licenses as above shall be provided and configured for at least 10 enterprise class servers.	In regards to the multi-pathing software license requirement, all the Operating System provides native multipathing capabilities for storage connectivity, therefore requesting to allow to use the native multipathing software of OS.			Clarification
4	M/s EMC & M/s Ricoh	Detailed Technical Specifications	37/B.2	STORAGE ARCHITECTURE	The storage systems shall have required no. 2/4 Gbps host Ports. Fiber-Channel Ports, shall work in load-sharing mode supporting multipathing, to provide in excess of 300MBps throughput, with 100% redundancy and automatic fail-over from storage to SAN switch. The FC host ports in the Storage Array should be scalable to at least 128.	Requesting to modify the requirement for host ports on storage system for latest FC ports with 8/16 Gbps FC host ports, as 2/4 Gbps host ports on storage systems has become obsolete. Please also mention the number of ports required from day one. Further, we can reduce the scalability requirement for host ports from 128 to 64 with higher speed ports availability to reduce on the acquisition cost.		Specifications mentioned in tender are minimum. Bidder can offer higher specifications.	Very Minor Change
5	M/s EMC & M/s Ricoh	Detailed Technical Specifications	38/B.7	STORAGE ARCHITECTURE	The storage shall be scalable to 64 active backend disk ports. Total offered capacity shall be based on configuration of minimum of 8 and maximum of 16 disks per loop on an average.	Requesting to mention the backend port speed to ensure that the latest technology is proposed. Also, 8-16 disks per loop is quite less and with backend speed of 2 Gbps, technology was allowing around 50 disks per loop. Requesting to change the clause that total offered capacity shall be based on configuration of minimum of 16 and maximum of 32 disks per loop on the average.		Specifications mentioned in tender are minimum. Bidder can offer higher specifications.	Very Minor Change
6	M/s EMC & M/s Ricoh	Detailed Technical Specifications	38/C.1.1.	STORAGE CAPACITY	Under RAID 0+1 and under RAID 5 The preferred disc type is 140 (+/- 10%) GB or above 15,000 RPM FC / SAS disks Sufficient no of hot spare disc to be provided with a minimum of 1 hot spare for every 32 disks	The RFP talks about capacity and not performance and as per current trends, applications are getting benefited enormously by using blend of high performance SSD and 10K RPM FC/SAS disks along with the storage based auto-tiering software which dynamically moves highly access blocks to high performance SSDs based on the access pattern to provide high performance at low latency. Therefore, requesting to ask around 10% on SSD and remaining on 10K RPM disks along with the auto-tiering software.		Bid will be evaluated as per tender specifications	No Change
7	M/s EMC & M/s Ricoh	Detailed Technical Specifications	38/C.1.2	STORAGE CAPACITY	Sufficient No of Cold Spare Disc (Not to be installed) of each type & capacity to be provided.	Please provide the clarity for number of cold spare disks to be provided.		Minimum of 1 cold spare disk for every 32 installed disks of each type and capacity to be provided. Or minimum 3% of raw capacity of storage should be provided as cold spare disks	Clarification

8	M/s EMC & M/s Ricoh	Detailed Technical Specifications	44/H.8	BACKUP SOFTWARE	Backup server software shall be licensed on the offered backup servers to the offered number of CPUs in each backup server.	Backup server software shall be licensed on the offered backup servers in cluster and should not depend on number of CPUs/RAM in backup servers or client machines.	As per RFP document, it is understood that the backup server need to be configured in cluster mode at primary and DR sites, so the backup software should be licensed accordingly without dependency on number of CPU or RAM in the backup servers or client machines as mentioned in clause H.10 on page no. 44	The backup client software should be data capacity based for minimum 20 TB of data. It should be independent of nos. of CPU and max available COD of the system.	Clarrification
9	M/s EMC & M/s Ricoh	Detailed Technical Specifications	44/H.9	BACKUP SOFTWARE	Backup client software shall be licensed to all the offered data base servers, all pre-implementation and training & testing servers to the offered number of CPUs including CPUs on COD in respective servers. The solution shall also be licensed to the Tape Library solution. However the no. of servers (clients) should not be the limitation for backup process.	Backup client software shall be licensed to all the offered data base servers, all pre-implementation and training & testing servers. The solution shall also be licensed to the Tape Library solution and the no. of servers (clients) provided by bidder.		The backup client software should be data capacity based for minimum 20 TB of data. It should be independent of nos. of CPU and max available COD of the system.	Clarrification
10	M/s EMC & M/s Ricoh	Detailed Technical Specifications	44/H.14	BACKUP SOFTWARE	Software shall support Scanning of Tape media to rebuild catalogs and indexes in case of disaster. It shall be supported thru Software GUI and not thru Command line utilities.	Software shall support Scanning of Tape media to rebuild catalogs and indexes in case of disaster. It shall be supported thru Software GUI or Command line utilities.	Recovery from disaster includes many steps to be followed up and the rebuild of catalog can be done through GUI or command line utilities for faster restore.	Software shall support Scanning of Tape media to rebuild catalogs and indexes in case of disaster. It shall be supported thru Software GUI and thru Command line utilities.	Clarrification
11	M/s EMC & M/s Ricoh	Detailed Technical Specifications	45/H.22	BACKUP SOFTWARE	The Backup software should use the RDBMS to store the catalogue and configuration information.	The Backup software should use the database/indexes to store the catalogue and configuration information.	All major backup software in the industry does not support RDBMS for catalogs which will restrict many vendors to quote their products in the bid.	The Backup software should use the RDBMS or equivalent to store the catalogue and configuration information.	Very Minor Change
12	M/s EMC & M/s Ricoh	Detailed Technical Specifications	45/H.23	BACKUP SOFTWARE	The Backup software should have the capability to dynamically add the storage space for the RDBMS which stores the catalogue & configuration information.	The Backup software should have the capability to dynamically add the storage space for the database/indexes spave which stores the catalogue & configuration information.	All major backup software in the industry does not support RDBMS for catalogs which will restrict many vendors to quote their products in the bid.	The Backup software should have the capability to dynamically add the storage space for the RDBMS or equivalent which stores the catalogue & configuration information.	Very Minor Change
13	M/s EMC & M/s Ricoh	Detailed Technical Specifications	46/H.35	BACKUP SOFTWARE	The software should have capability to retrieve selectively based on search criteria	The clause is modified as, " <b>The software should have capability to retrieve selective data at file and object level either using search criteria or with browsable recovery method</b> "	The backup software should have capability to retrieve selective data at file and object level using GUI and browsable recovery option. This capability is needed to restore individual file or group of files i.e. selective restores. The implementation of the functionality varies with OEM and we support the functionality by browsing the required files for restore. Therefore requesting to allow the browse based recovery method also. This will allow the major backup vendor like EMC to participate & make the bid competitive.	The software should have capability to retrieve selectively based on search criteria or equivalent.	Very Minor Change

13	M/s EMC & M/s Ricoh	Detailed Technical Specifications	50/PART-A S No 1	FCIP Router	<p>One (01) number FCIP add on card with Two (02) numbers of IP ports along with minimum 16 FC ports shall be provided and integrated with each of the existing 2 nos. of SAN director switches at Primary site. The offered equipment should be able to work seamlessly with existing SAN system of primary site. It should provide protocol conversion for storage to storage replication over IP network with the following features :</p> <p>Fibre cabling for connecting FCIP IP ports to core router shall be provided. Cabling shall be done with minimum 2 runs of minimum 6 core fibre sx cable from SAN director rack to Core router rack. The cables shall be terminated using pig tail connectors. All necessary accessories like LIU at both ends shall be provided.</p> <p>SAN Switch must support IPSEC encryption to ensure integrity of data over FCIP.</p> <p>SAN Switch must support compression of Data over FCIP.</p> <p>The FCIP add-on card must support Fabric routing for FCIP to enable cross-fabric connectivity and selective transfer of data.</p>	<p>As per discussion during pre-bid for allowing storage based ports for replication, the clause can be modified by allowing storage based ports for replication however we should keep the functional requirement intact like no. of ports, IPsec for security and compression for link efficiency. The compression feature is very helpful on reducing the recurring cost of link between two sites. Typically FCIP routers can achieve a compression rate of upto 4:1.</p>	<p>The clause can be modified to keep the functional requirement intact as, " One (01) number FCIP add on card with Two (02) numbers of IP ports along with minimum 16 FC ports shall be provided and integrated with each of the existing 2 nos. of SAN director switches or 2 x IP ports per storage controller on the proposed Storage array for replication. The offered equipment/solution should be able to work seamlessly with existing SAN system of primary site. It should provide protocol conversion for storage to storage replication over IP network with the following features : Fibre cabling for connecting FCIP IP ports or Storage IP ports to core router shall be provided. Cabling (if required) shall be done with minimum 2 runs of minimum 6 core fibre sx cable from SAN director rack to Core router</p>	Bid will be evaluated as per tender specifications	No Change
14	M/s EMC & M/s Ricoh	Detailed Technical Specifications	50/PART-A S No 2	Storage Upgrade for Journal Volume	<p>Additional one (01) TB of usable space under RAID 5 using 140 (+/-10%) GB or above 15,000 RPM FC /SAS disks with Two (02) hot spare disks to be configured as journal disk space for Log shipment in the existing Primary storage.</p>	<p>Please elaborate the meaning of upgrade. Also would like to mention that the replication technology differs vendor to vendor, some uses journal volumes while other uses cache, therefore requesting to change the clause by asking additional capacity if replication technology uses journals or additional cache if replication technology uses cache.</p>		<p>Additional one (01) TB of usable space under RAID 5 using 140 (+/-10%) GB or above 15,000 RPM FC /SAS disks with Two (02) hot spare disks to be configured as journal disk space for Log shipment in the existing Primary storage. The bidder can offer equivalent replication technology provided RPO and RTO should be achievable as mentioned in page no 16 and 17 of tender document.</p>	Very Minor Change
15	M/s EMC & M/s Ricoh	Detailed Technical Specifications	51/PART-B S.No.1 e	Replication Software	<p>Storage Subsystem shall support continuous Asynchronous replication technologies without using any buffering scheme inside data cache to reduce the recovery time objective.</p>	<p>As discussed earlier, Replication technology varies with vendors, therefore requesting to change the clause as " <b>Storage Subsystem shall support continuous Asynchronous replication technologies either using buffering scheme inside data cache or by journaling to reduce the recovery time objective.</b>"</p>		Bid will be evaluated as per tender specifications	No Change
16	M/s EMC & M/s Ricoh	Detailed Technical Specifications	52/PART-B S.No.1 k	Replication Software	<p>The DR solution shall maintain data consistency at secondary DR site at all times. The asynchronous replication module of the DR software shall support Time stamping for maintaining the write ordering between primary &amp; DR site.</p>	<p>Again the OEM implementation varies, therefore requesting to change the clause as to make RFP competitive as below, " <b>The DR solution shall maintain data consistency at secondary DR site at all times. The asynchronous replication module of the DR software shall support Time stamping or Dependent Write Order for maintaining the write ordering between primary &amp; DR site.</b>"</p>		<p>The DR solution shall maintain data consistency at secondary DR site at all times. The asynchronous replication module of the DR software shall support Time stamping or equivalent technology for maintaining the write ordering between primary &amp; DR site.</p>	Minor Change
17	M/s Ricoh	ELIGIBILITY CRITERIA	21/2	Pre-Qualifying Criteria for Bidder	<p>The average annual turnover of the bidder shall be a minimum of Rs. 4.2 Crores in last 3 financial years (FY 2011-12, 2012-13 and 2013-14). Copy of Audited Balance Sheet and P&amp;L Account for the respective financial years to be submitted in this regard.</p>	<p>We request you to change the annual turnover Rs.100 Crore so that only reputed IT player participated who having multi state office and sevice support office all across India.</p>		Bid will be evaluated as per tender specifications	No Change

18	M/s Ricoh	ELIGIBILITY CRITERIA	21/3	Pre-Qualifying Criteria for Bidder	<p>The bidder must have successfully executed similar projects (meeting any of the below criteria) in the last 3 financial years (FY 2012-13, 2013-14, 2014-15 and including the period of FY 2015-16 till bid submission date). (Proof: Necessary Purchase order/LOI/Contract/Certification on client letterhead/Performance certificate as proof of services provided for the last 3 years needs to be submitted). The details need to be submitted in the following format along with the copy of the completion Certificate or Purchase Orders.</p> <p>a. One project covering supply and installation of SAN Storage and Backup System with project value greater than Rs. 4.40 Crore or b. Two projects covering supply and installation of SAN Storage and Backup System each having project value greater than Rs. 2.75 Crore. or c. Three projects covering supply and installation of SAN Storage and Backup System each having project value greater than Rs. 2.20 Crore.</p>	<p>We would request you to modify this as "Installation of Data Center product like Server, Storage, Backup Software and Network with project value greater than Rs.4.40 Crore in India". or b. Two projects covering supply and installation of Data Center product like Server, SAN Storage, Network and Backup System each having project value greater than Rs. 2.75 Crore.</p>		Bid will be evaluated as per tender specifications	No Change
19	M/s Ricoh	ELIGIBILITY CRITERIA	-	Pre-Qualifying Criteria for Bidder	-	<p>The bidder must have a valid ISO 9001:2000 certificate valid upto Dec.2015 (issued in India). Attach copy of the Certificate.</p>		Bid will be evaluated as per tender specifications	No Change
20	M/s Ricoh	ELIGIBILITY CRITERIA	-	Pre-Qualifying Criteria for Bidder	-	<p>Bidder should provide the Support locations detail in India (Infrastructure Available with Bidder)</p>		Bid will be evaluated as per tender specifications	No Change
21	M/s Quantum & M/s Ricoh	Detailed Technical Specifications	48/J, 2	TAPE LIBRARY	<p>The tape library shall be central library of tapes for all the servers offered in the system. The bidder to indicate no of media slots to be supplied and it's scalability.</p>	<p>Seeing the Storage Capacity of 80 TB , out of which usable data will be approx. 50 TB. Offered LTO-6 Data cartridge capacity is 2.5 TB (uncompressed). Therefore the requirement of the Tape slot count would be not more than 100-200 . Hence requesting you to pls mention the Tape Slot license is 120 and scalable to 300</p>	<p>The tape library shall be central library of tapes for all the servers offered in the system. The bidder to supply 120 no of media slots license and shall be scalable to 300.</p>	<p>As mentioned in point no. J3 on page no. 48 of tender document, the tape library shall support at least 44 drives and 1000 slots. All required licenses must be provided by bidder.</p>	Clarrification
22	M/s Quantum & M/s Ricoh	Detailed Technical Specifications	48/J, 3	TAPE LIBRARY	<p>Bidder shall supply sufficient no blank new tape media. The library shall be configured with minimum 6 x LTO Gen 6 drives and shall be scalable to 12 LTO Gen6 drives in the same frame without stacking. The tape library shall support at least 44 drives and 1000 slots.</p>	<p>Requesting you to pls specify the media count, which shall be equals to the Tape Slot license or any specific no. , as every partner has their own sizing parameters &amp; assumptions.</p> <p>According to the Primary Data capacity i.e. 50 TB approx. the Full backup will take approx. 24 Hrs to complete using 6 Nos. of LTO-6 drives, even if we calculate the annual data growth 10 % , 12 LTO-6 Drives are more than enough to complete the Backup.</p> <p>Request you to Pls remove the Drive support of 44 Drives &amp; 1000 Slot. when Tape Drive scalability is 12 Drives as per the calculation of 5-7 year annual growth.</p>	<p>Pls remove the extra scalability on the Tape Drives &amp; Slot count.</p> <p>Bidder shall supply blank new tape media equals to the Tape Slot license. The library shall be configured with minimum 6 x LTO Gen 6 drives and shall be scalable to 12 LTO Gen6 drives.</p>	<p>Bid will be evaluated as per tender specifications. Blank Cartridge quantity is mention in Section XI BOQ of tender document.</p>	Clarrification
23	M/s Quantum & M/s Ricoh	Detailed Technical Specifications	49/J, 8	TAPE LIBRARY	<p>The library shall have automatic self-configuring for cells, drives and Cartridge Access Ports</p>	<p>Configuration of Cells/ Drives &amp; Cartridges requires manual Configuration as per the Configuration need with partitioning. No Tape Library can create partition and assign the Cartridges &amp; access port automatically. Requesting you to pls remove this point.</p>	<p>The library have function to configuring for cells, drives and Cartridge Access Ports using its management console.</p>	<p>The library shall have automatic self-configuring /self - discovery for cells, drives and Cartridge Access Ports</p>	Minor Change

24	M/s HP	Detailed Technical Specifications	37/B.1	STORAGE ARCHITECTURE	The storage array shall be an all-fiber technology and shall have all active components redundant to provide a No Single Point of Failure array architecture at any level.	Request to modify the mentioned specifications as "The storage array shall be an all-fiber technology for front end connectivity and SAS for backend technology and shall have all active components redundant to provide a No Single Point of Failure array architecture at any level.		Bid will be evaluated as per tender specifications.	No Change
25	M/s HP	Detailed Technical Specifications	37/B.2	STORAGE ARCHITECTURE	The storage systems shall have required no. 2/4 Gbps host Ports. Fiber-Channel Ports, shall work in load-sharing mode supporting multi-pathing, to provide in excess of 300MBps throughput, with 100% redundancy and automatic fail-over from storage to SAN switch. The FC host ports in the Storage Array should be scalable to at least 128.	The storage systems shall have required no. 2/4 Gbps host Ports. Fiber-Channel Ports, shall work in load-sharing mode supporting multi-pathing, to provide in excess of 300MBps throughput, with 100% redundancy and automatic fail-over from storage to SAN switch. The FC host ports in the Storage Array should be scalable to at least <del>128</del> 64	Earlier considering 4Gbps connectivity, the port count was 128. With current configuration of 8Gbps connectivity, you can consider 64 ports as sufficient which is also inline with bandwidth as earlier with reduction in the number of ports	Bid will be evaluated as per tender specifications	No Change
26	M/s HP	Detailed Technical Specifications	38/B.7	STORAGE ARCHITECTURE	The storage shall be scalable to 64 active backend disk ports. Total offered capacity shall be based on configuration of minimum of 8 and maximum of 16 disks per loop on an average.	The storage system shall be configured with minimum <del>32 GB</del> 64GB of cache, expandable to <del>64 GB</del> 128GB(at least 2 times of minimum). The system control cache, if required, shall be in addition to the above.	Since earlier storage were coming with a restriction in cache which is not a limitation now with modern storages, request you to consider higher cache.	Specifications mentioned in tender are minimum. Higher specifications will be considered.	Very Minor Change
27	M/s HP	Detailed Technical Specifications	39/D.4	AVAILABILITY AND DATA PROTECTION FEATURES.	Oracle HARD technology or equivalent for data base validation.	Request to remove the clause as every storage vendor does data validation. Storage as technology does not really understand type of data.	Oracle themselves have stopped using this technology and this will be very specific point from Oracle perspective only.	Equivalent technology for database validation will be considered.	Very Minor Change
28	M/s HP	Detailed Technical Specifications	40/E.6	MANAGEMENT	The storage shall be provided with single integrated management tool to provide capacity projections for capacity planning and performance matrix to resolve performance related issues.	Request to remove the capacity projections and capacity planning point		Bid will be evaluated as per tender specifications	No Change
29	M/s HP	Detailed Technical Specifications	40/E.9	MANAGEMENT	System shall offer an overview of the structure of the network using icons to depict SAN resources.	Request to provide details about the required functionality		Each and every resources of SAN should be depicted on GUI.	Very Minor Change
30	M/s HP	Detailed Technical Specifications	41/F.2	FIBER CHANNEL (FC) SAN SWITCHES	Sufficient (Minimum 48) Nos. of fiber channel ports of 4Gbps or above (1/2/4/above auto sensing) full-duplex to be configured, and at least 4 nos of the above shall be configurable as Long Wave ports to support up to 20 Km direct storage circuit. The switch shall be expandable to twice no of offered 4Gbps or above full-duplex FC ports with a minimum of 256 ports support per switch.	Sufficient (Minimum 48) Nos. of fiber channel ports of 4Gbps or above (1/2/4/above auto sensing) full-duplex to be configured, and at least 4 nos of the above shall be configurable as Long Wave ports to support up to 20 Km direct storage circuit. The switch shall be expandable to twice no of offered 4Gbps or above full-duplex FC ports with a minimum of 256 ports support per switch.	Since your requirement currently is for 48 ports, considering 100% scalability, you should look at a scalability to 96 ports. Further scalability can be achieved by cascading / trunking multiple 96 ports switch.	Bid will be evaluated as per tender specifications	No Change
31	M/s HP	Detailed Technical Specifications	41/F.3	FIBER CHANNEL (FC) SAN SWITCHES	Shall be configured with redundant control processor modules.	Request to remove the clause to avoid increase in the cost		Bid will be evaluated as per tender specifications	No Change
32	M/s HP	Detailed Technical Specifications	42/F.13	FIBER CHANNEL (FC) SAN SWITCHES	The SAN Switch should support FCIP add on card as per the specifications of FCIP Router in section Additional Requirements for DR at Primary Data Center – Part A	Request to remove the clause to avoid increase in the cost	Since current generation storage comes with the FCIP ports by default, request you to delete this point as this will be redundant technology.	Bid will be evaluated as per tender specifications	No Change
33	M/s HP	Detailed Technical Specifications	48/J.3	TAPE LIBRARY	Bidder shall supply sufficient no blank new tape media. The library shall be configured with minimum 6 x LTO Gen4 Gen6 drives and shall be scalable to 12 LTO Gen4 Gen6 drives in the same frame without stacking. The tape library shall support at least 44 drives and 1000 slots.	Bidder shall supply sufficient no blank new tape media. The library shall be configured with minimum 6 x LTO Gen4 Gen6 drives and shall be scalable to 12 LTO Gen4 Gen6 drives in the same frame without stacking. The tape library shall support at least 44 <del>24</del> drives and <del>1000</del> 300 slots.	Since the technology is changed from Gen4 to Gen6 you will get a better performance which would not need a scalability to 44 drives. While considering the growth path for 5yrs and beyond, you should look at a scalability to 24 drives and 300 slots. Also now the modular libraries by cascading are able to scale to the mentioned drive scalability with same robotics, so this will be beneficial for you to go with a stacking / cascading libraries / modules.	Bid will be evaluated as per tender specifications.	No Change

34	M/s HP	Detailed Technical Specifications	51/B.1.e	Replication Software	Storage Subsystem shall support continuous Asynchronous replication technologies without using any buffering scheme inside data cache to reduce the recovery time objective.	Request remove the clause as continuous replication technology is practically not possible because of link latency, distance between 2 sites and etc		Bid will be evaluated as per tender specifications	No Change
35	M/s Hitachi Systems Micro Clinic Pvt ltd	Additional Requirements for DR at Primary Data Center	52/b, viii	DR Management Suite	DR Workflow automation	Does RECPDCL desire a simulated execution of DR workflows to ensure availability of pre-requisites for actual recovery and environment check for any deviations? <b>Note: Simulation mode gives greater assurance of a recovery</b>		DR workflow automation should offer complete automation of failover, normal operations, switch over and switch back, DR drills	Clarrification
36	M/s Hitachi Systems Micro Clinic Pvt ltd	Payment Criteria	15/3	Payments Terms	<b>Pyament Terms: 3.2</b> First 50 (Fifty) % payment shall be released against delivery and successful installation of material at site and user acceptance by RECPDCL Nodal Officer. Exact Site details and RECPDCL Nodal Officer will be informed in the Release Order. The bidder is required to obtain user acceptance from RECPDCL Nodal Officer and submit a copy of user acceptance to the designated Authority along with the invoice. <b>3.3</b> Balance 25(Twenty Five) % payment shall be released after Acceptance of System by Goa Electricity department with loading of all applications under R-APDRP Scheme. The bidder is required to obtain user acceptance from RECPDCL Nodal Officer. The bidder is required submit a copy of RECPDCL's user acceptance to the designated Authority along with the invoice. <b>3.4</b> Balance 25(Twenty Five) % payment shall be released after Successful Data Replication Drill and Testing between DC and DRC and acceptance of System by Goa Electricity Department. The bidder is required to obtain user acceptance from RECPDCL Nodal Officer. The bidder is required submit a copy of RECPDCL's user acceptance to the designated Authority along with the invoice.	The payment terms are very stringent and are linked to loading of all the applications under R-APDRP scheme. Since the SoW is under the RFP is only limited to Supplying the storage components, our payments could not be linked to loading of applications which are not under our control. Any delay in loading of the applications by the Application Vendor will lead to delay in our payments (approx 50%). We therefore recommend the following changes in the payment Terms: <b>Modifications Suggested: 3.2 First 70 (Seventy) %</b> payment shall be released against delivery and successful installation of material at site and user acceptance by RECPDCL Nodal Officer. Exact Site details and RECPDCL Nodal Officer will be informed in the Release Order. The bidder is required to obtain user acceptance from RECPDCL Nodal Officer and submit a copy of user acceptance to the designated Authority along with the invoice. <b>3.3 Balance 20(Twenty) %</b> payment shall be released after Acceptance of System by Goa Electricity department with loading of all applications under R-APDRP Scheme <b>or within 3 months from the first user</b>		Bid will be evaluated as per tender specifications	No Change
37	M/s Hitachi Systems Micro Clinic Pvt ltd	Detailed Scope of Work	11/28, 1	Additional Scope for DR Site	The Supply of equipment, software etc. for DR site should commence only after completion of 80% work of the package and DR site shall be commissioned only after successful go live of at least 70% Town as per the scope of work. Release Order will be placed accordingly.	The clause is not very clear. Please elaborate.		Separate release orders for data center & disaster recovery center will be placed to meet this NIT requirement	Clarrification
38	M/s Hitachi Systems Micro Clinic Pvt ltd	Detailed Scope of Work	10/23.a	Spares	The Bidder shall include in his scope of supply all mandatory and commissioning spares related to Hardware requirements. The bidder has to quote for the mandatory spares requirement for 5 years operation after warranty period. List of such spares along with the quantities shall be indicated in the bid and shall be considered for bid evaluation purpose.	Please elaborate if the spares order would be placed along with the main order or later as the OEM may not have a policy to support the spares for 10 years period for the particular models being quoted.		Spares order will not be placed along with the main order. Bidder is required to maintain the supplied system during warranty and AMC period as metioned in the tender.	Very Minor Change
39	M/s Hitachi Systems Micro Clinic Pvt ltd	Service Level Agreement (SLA)	16/2, b	Maintenance Services	Corrective Maintenance: Any system failure will be attended at the user site by bidder's engineer and if necessary by their specialists. In case equipment is to be taken to Test & Repair Center of OEM, bidder will provide standby equipment. It is responsibility of bidder to ensure proper earthing of location / site before installation/upgrade / maintenance of equipment till the warranty / AMC expires.	The earthing of the site / location (DC / DR) should be done as whole by GED and not specific to the equipment. We request you to remove this scope from overall SoW of the RFP.		The bidder is required to ensure that proper earthing is available at site before installation of any equipment.	Very Minor Change
40	M/s Hitachi Systems Micro Clinic Pvt ltd	Penalty for SLA non-compliance	17/6	Penalty for SLA non-compliance	In case the uptime commitment is not met, same shall attract a penalty @ Rs. 10000 per day per equipment/software or part thereof. The penalty amounts shall be recovered from the payments due to the vendor. A sample calculation is given below: If the actual uptime achieved in 97.5%, penalty amount shall be: Rs. 10000 x {(99.8 - 97.5) / 100 x 365} = Rs. 83,950	The Penalty is very severe in nature and should be reduced to maximum half of the current i.e. Rs. 2000 instead of Rs. 10,000 especially when it is calculated on per month basis.		Bid will be evaluated as per tender specifications	No Change

41	Hitachi Data Systems India Pvt Ltd.	Detailed Scope of Work	Page 11, Pt 27a,b	DC Design and Architecture	<p>a) The DC architecture &amp; design should be driven by the principle of energy consumption optimization.</p> <p>b) The DC architecture and design should consider various factors including storage consolidation / virtualization for a cost effective and energy efficient solution.</p> <p>c) The computing equipment and systems in the DC should comply to SpecPower_ssj2008, TPC or equivalent standards.</p>	We appreciate, RECPDCL recognizes the importance of energy efficient solutions. Manufacturers today put lot of emphasis on R&D and create Energy Efficient products. Will RECPDCL give any plus points to bidders offering such energy efficient products / solutions ? If so, what will be the methodology ?		Solution should support energy efficiency and should be cost effective. Extra weightage is not factored for energy efficiency.	Clarification
42	Hitachi Data Systems India Pvt Ltd.	Detailed Scope of Work	Page 12, Pt 29a	Availability test	<p>After successful completion of installation and configuration availability test shall be conducted for minimum 10 days continuously. The percentage availability shall be defined as:</p> $\frac{(\text{Test Duration Time} - \text{System Outage Time}) \times 100}{(\text{Test duration Time})}$ <p>The test duration time shall be exclusive of external power failure time.</p>	It is practical to understand that failures and hence non-availability of systems are not only due to power failure, but it may occur due to other environment conditions as well like dust, pollutants etc, We assume RECPDCL has provided for these conditions as well, suitably.		Environmental conditions will be maintained as per data center practices. Supplied equipment will be housed in data center.	Clarification
43	Hitachi Data Systems India Pvt Ltd.	Detailed Scope of Work	Page 15, Pt 2.2	Timelines for Delivery And Installation	Installation/configuration/commissioning shall be completed within 2 week of delivery date.	Since Installation and implementation activities are many a times dependent upon site conditions as well, hence putting a strict deadline of 2 weeks' timeframe and levying penalty is not advisable. Request relaxation in this clause.		This NIT is for Rate Contract. Before placing the Release Order, required site conditions will be ensured.	Clarification
44	Hitachi Data Systems India Pvt Ltd.	Service Level Agreement (SLA)	page 16, Pt 3	RPO and RTO	<p>Recovery Point Objective is the maximum amount of time lag between Primary and Secondary storages. OWNER intends to maintain RPO as &lt; 15 minutes for all application and data at primary site.</p> <p>Recovery Time Objective is maximum elapsed time allowed to complete recovery of application processing at DR site. In case of a disaster, the RTO shall be measured from the time when the decision is finalized &amp; intimated to the contractor by OWNER to shift the operations to DR site.</p> <p>The contractor in association with owner's personnel shall ensure compliance to following RTOs –</p> <p>Application : RTO</p> <p>1 Metering billing Collection, New Connection, Disconnection, Meter data acquisition, Energy audit: 6 Hours</p> <p>2 MIS, Customer Care Center, GIS applications and network analysis: 12 Hours</p> <p>3 Web Self service: 24 Hours</p> <p>4 Pre-implementation and Testing &amp; development system:36 Hours</p>	RPO is a function of total data to be transmitted from DC to DR at a particular time and the bandwidth available between 2 sites. Is RECPDCL ensuring sufficient bandwidth is available between 2 sites or is Bidder supposed to do the bandwidth requirement analysis?		Availability of required bandwidth between DC and DR site will be ensured. Bandwidth analysis is not in the scope of this NIT.	Very Minor Change
45	Hitachi Data Systems India Pvt Ltd.	GENERAL CONDITIONS OF TENDER	Page 19, Pt 12	-	RECPDCL reserves the right to increase or decrease the RC quantity (on same rate and terms and conditions) by another 20% if required.	This looks to us as a One-time Purchase for Goa State Electricity Department only. If such procurement is planned for other states also in future, then it may be possible the solution sizing of other states may be different owing to a different no. of customers in that state. Please elaborate, under what circumstances shall this be treated as a Rate Contract, because it might affect commercials. IF this is a Rate Contract, will RECPDCL treat it as a catalogue and pick and choose various components of the bid like Server, Storage, SAN Switches etc individually while placing a repeat order. Also Rate Contracts usually have a price validity of 1 year extendable further, but here in the RFP, you have asked for 90 days price validity only. Kindly elaborate.		This NIT is for placing Rate contract only for GED. Release order will be placed as and when various equipment will be required at DC and DR sites.	Very Minor Change

46	Hitachi Data Systems India Pvt Ltd.	ELIGIBILITY CRITERIA	Page 22, Pt 3 in Table	Mandatory Requirements for OEM	The OEM vendor shall have at least one service center within the Goa State with sufficient infrastructure	Request relaxation on this point, it is not feasible for all OEM's to have a Service and Spare Center in a small state like Goa, instead we can service from the nearest hub like Mumbai. Otherwise the bid becomes limited only to a few OEM's thus denying competitive participation. It may also be noted that these days, systems are highly available and redundant in nature that even if there is a part failure, hot spares kick-in or even, on-site cold spares come in handy sometimes.		Query already replied above. Please refer to S.No. 2	Minor Change
47	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 36, Pt A.3	Central Storage	The storage solution must have intelligent hardware based RAID support for the proposed solution. The Owner may develop a near site synchronous and remote asynchronous DR site at a later date. The storage must support hardware based (host independent) data replication to a remote site and bidirectional data copy.	We understand that the DC is in Goa and DR site is being planned in Delhi, hence only Asynchronous based replication is possible. In such a case , are Sync and Async replication software licenses to be offered from day one?		Release order for different items of Rate Contract will be placed as and when required. Bidder is required to supply items as per release order.	Clarrification
48	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 37, Pt B.2	STORAGE ARCHITECTURE	The storage systems shall have required no. 2/4 Gbps host Ports. Fiber-Channel Ports, shall work in load-sharing mode supporting multipathing, to provide in excess of 300MBps throughput, with 100% redundancy and automatic fail-over from storage to SAN switch. The FC host ports in the Storage Array should be scalable to at least 128.	With the latest technology available , Front End ports are now available with 8Gbps and some have even 16Gbps bandwidth, while 2/4Gbps is already obsolete, It is recommended to have 8/16Gbps FC ports for protection against obsolescence in future.		Specifications mentioned in tender are minimum. Higher specifications will be considered.	Very Minor Change
49	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	page 38, Pt C.1.1	STORAGE CAPACITY	Under RAID 0+1 and under RAID 5	# Is there any specific performance criteria in terms of IOPS which needs to be met? Also most of the OEM's have already discontinued 146GB FC/SAS Drives. It is recommended to have preferred disk type as 300GB 15k SAS Drive to keep all OEM's at par.		Specifications mentioned in tender are minimum. Higher specifications will be considered. Please refer point no B.2 on page no. 37 of tender document.	Very Minor Change
50	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	page 38, Pt C.1.1	STORAGE CAPACITY	The preferred disc type is 140 (+/- 10%) GB or above 15,000 RPM FC / SAS disks Sufficient no of hot spare disc to be provided with a minimum of 1 hot spare for every 32 disks	Secondly, instead of having huge number of small sized disks, it is recommended to have few SSD's and few large sized SAS drives and enable tiering between SSD and SAS drives to deliver higher performance at same cost.		Specifications mentioned in tender are minimum. Higher specifications will be considered.	Very Minor Change
51	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	page 38, Pt C.1.2	STORAGE CAPACITY	Sufficient No of Cold Spare Disc (Not to be installed) of each type & capacity to be provided.	Cold Spare Disks are used only in case of any major eventuality, given the fact that these days , storage systems are robust and highly reliable in nature clubbed with sufficient no of Global Hot spare disks. Removing Cold spare disks requirement from the tender will help in reducing overall costs to RECPDCL.		Bid will be evaluated as per tender specifications.	No Change
52	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 39, Pt E.2	MANAGEMENT	The Storage Array shall be supported in a virtualized environment.	For the sake of clarity, kindly elaborate on virtualized environment, do you mean that storage system should support heterogeneous storage virtualization, because existing systems may be from a different OEM ?		Storage Array should support virtualization on servers.	Very Minor Change
53	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 40, Pt E.4	MANAGEMENT	Storage management software shall be provided & configured and shall be able to move data seamlessly within the storage box to different RAID groups without stopping the host applications.	Kindly clarify if this means automatic tiering of data between different types of disks.		This is related to storage management software functionality which should provide facility to move data between different RAID groups within same storage box without stopping host applications.	Clarrification
54	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 40, Pt E.13	MANAGEMENT	The storage management platform shall be highly scalable and shall have the capability to operate in multiple tiers like console, database, agent and servers tiers. These tiers could be installed and implemented independently distributed if required.	Kindly explain this clause in more detail so that relevant software component can be proposed.		It is related to storage management platform architecture.	Clarrification



55	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 41 Pt F.2	FIBER CHANNEL (FC) SAN SWITCHES	Sufficient (Minimum 48) Nos. of fiber channel ports of 4Gbps or above (1/2/4/above auto sensing) full-duplex to be configured, and at least 4 nos of the above shall be configurable as Long Wave ports to support up to 20 Km direct storage circuit. The switch shall be expandable to twice no of offered 4Gbps or above full-duplex FC ports with a minimum of 256 ports support per switch.	This specifications seems to be dated, Currently, 8Gbps FC ports and above are offered by all vendors. Does RECPDCL really have 1Gbps devices to be connected to the FAC SAN Switch chassis. We request you to remove 1Gbps from this clause, instead put 2/4/8Gbps.		Specifications mentioned in tender are minimum. Higher specifications will be considered.	Very Minor Change
56	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 43, Pt H1	BACKUP SOFTWARE	The proposed Backup server Solution shall be available on 64 bit OS platforms and shall have the capability to support for all major Operating systems.	Request you to change this clause to "shall be available on any 64 bit OS platform". Please remove "support for all major operating systems". This is because most of the backup software's have a lower TCO on x86 architecture.		The proposed Backup server Solution shall be available on 64 bit OS platforms and shall have the capability to support for all major Operating systems for server type mentioned in point no. G2 on page no. 42 of tender document.	Clarrification
57	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 44, Pt H8	BACKUP SOFTWARE	Backup server software shall be licensed on the offered backup servers to the offered number of CPUs in each backup server.	Request you to change this clause to "backup software should be licensed either by the number of hosts protected or either by the capacity of data protected in the environment". Attaching the license to the CPU count would result in change or non-compliance if the machine with a different CPU count is added in the backup domain for protection.		The backup software should be data capacity based for minimum 20 TB of data. Please also refer point no. H.9 and H.10 on page no. 44.	Clarrification
58	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 44, Pt H9	BACKUP SOFTWARE	Backup client software shall be licensed to all the offered data base servers, all pre-implementation and training & testing servers to the offered number of CPUs including CPUs on COD in respective servers. The solution shall also be licensed to the Tape Library solution. However the no. of servers (clients) should not be the limitation for backup process.	Every vendor has its own licensing policy however linking licensing to CPU count in the servers is unique to a particular vendor. Kindly modify this clause suitably and have licenses linked to either capacity to protect OR total no. of servers to be backed up.		The backup software should be data capacity based for minimum 20 TB of data. Please also refer point no. H.9 and H.10 on page no. 44.	Clarrification
59	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 47, Pt H43	BACKUP SOFTWARE	The solution should provide capabilities to integrate to VMWare, vSphere, MS Hyper-V, Power Hyper-V for performing efficient guest & image level backups. For VMWare environment, the solution should provide integration with VMWare API for Data Protection to perform efficient Image level backup and File Level recovery from the same. Similarly for MS Hyper-V the solution should support VSS snapshot based backups. Should support VMWare vSphere version 5.0, 5.1, 5.5 and above, as well as Hyper-V 2008 R2, 2012 & 2012 R2. Should integrate with third party VTLs/Purpose Built Backup Appliance which has data deduplication capabilities. The solution should also support OST for backup to disk storage appliances. The backups should be configured on disk and copies requiring long term retention must taped-out to physical tapes outside the disk based backup appliance. The backup software should support data movement directly from the backup client to the disk target / targeted LTO without passing through the backup server to reduce the number of storage nodes / media server requirements. Should support block based backup for Windows file system to speed up the backup of workloads such as high density file systems or very large files	It is highly recommended to add, "should have the ability to de-duplicate data on any disk array and eliminate dependence on purpose built backup hardware thereby lowering the cost of ownership"		Bid will be evaluated as per technical specifications mentioned in tender document.	No Change
60	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 48, Pt J2	TAPE LIBRARY	The tape library shall be central library of tapes for all the servers offered in the system. The bidder to indicate no of media slots to be supplied and it's scalability.	Seeing the Storage Capacity of 80 TB , out of which usable data will be approx. 50 TB. Offered LTO-6 Data cartridge capacity is 2.5 TB (uncompressed). Therefore the requirement of the Tape slot count would be not more than 100-200 .The tape library shall be central library of tapes for all the servers offered in the system. The bidder to supply 120 no of media slots license and shall be scalable to 300.		As mentioned in point no. J3 on page no. 48 of tender document, the tape library shall support at least 44 drives and 1000 slots. All required licenses must be provided by bidder.	Clarrification

61	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 48, Pt J3	TAPE LIBRARY	<p>Bidder shall supply sufficient no blank new tape media. The library shall be configured with minimum 6 x LTO Gen 6 drives and shall be scalable to 12 LTO Gen6 drives in the same frame without stacking. The tape library shall support at least 44 drives and 1000 slots.</p>	<p>Requesting you to pls specify the media count, which shall be equal to the Tape Slot license or any specific no. , as every bidder has their own sizing parameters &amp; assumptions. According to the Primary Data capacity i.e. 50 TB approx. the Full backup will take approx. 24 Hrs. to complete using 6 Nos. of LTO-6 drives, even if we calculate the annual data growth 10 % , 12 LTO-6 Drives are more than enough to complete the Backup. Request you to Pls remove the Drive support of 44 Drives &amp; 1000 Slot. when Tape Drive scalability is 12 Drives as per the calculation of 5-7 year annual growth. Pls remove the extra scalability on the Tape Drives &amp; Slot count. Bidder shall supply blank new tape media equals to the Tape Slot license. The library shall be configured with minimum 6 x LTO Gen 6 drives and shall be scalable to 12 LTO Gen6 drives.</p>		<p>As mentioned in point no. J3 on page no. 48 of tender document, the tape library shall support at least 44 drives and 1000 slots. All required licenses must be provided by bidder. Blank Cartridge quantity is mention in Section XI BOQ of tender document.</p>	Clarrification
62	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 49, Pt J8	TAPE LIBRARY	<p>The library shall have automatic self-configuring for cells, drives and Cartridge Access Ports</p>	<p>Configuration of Cells/ Drives &amp; Cartridges requires manual Configuration as per the Configuration need with partitioning. No Tape Library can create partition and assign the Cartridges &amp; access port automatically. The library have function to configuring for cells, drives and Cartridge Access Ports using its management console. Requesting you to pls remove this clause.</p>		<p>The library shall have automatic self-configuring /self - discovery for cells, drives and Cartridge Access Ports</p>	Clarrification
63	Hitachi Data Systems India Pvt Ltd.	DETAILED TECHNICAL SPECIFICATION	Page 50, Pt A1	FCIP Router	<p>One (01) number FCIP add on card with two (02) numbers of IP ports along with minimum 16 FC ports shall be provided and integrated with each of the existing 2 nos. of SAN director switches at Primary site. The offered equipment should be able to work seamlessly with existing SAN system of primary site. It should provide protocol conversion for storage to storage replication over IP network with the following features :</p> <p>Fibre cabling for connecting FCIP IP ports to core router shall be provided. Cabling shall be done with minimum 2 runs of minimum 6 core fibre sx cable from SAN director rack to Core router rack. The cables shall be terminated using pig tail connectors. All necessary accessories like LIU at both ends shall be provided.</p> <p>SAN Switch must support IPSEC encryption to ensure integrity of data over FCIP.</p> <p>SAN Switch must support compression of Data over FCIP.</p> <p>The FCIP add-on card must support Fabric routing for FCIP to enable cross-fabric connectivity and selective transfer of data.</p>	<p>Is it mandatory to have FCIP add on blades in the chassis. Or separate FCIP routers can be used. As the best practice it is always safer to connect storage replication ports directly to the individual FCIP routers separately, so that if something happens to production Chassis, data replication should not get affected.</p>		<p>Bid will be evaluated as per tender specifications</p>	No Change
64	M/s IBM	DETAILED TECHNICAL SPECIFICATION	37/B.2	STORAGE ARCHITECTURE	<p>The storage systems shall have required no. 2/4 Gbps host Ports. Fiber-Channel Ports, shall work in load-sharing mode supporting multi-pathing, to provide in excess of 300MBps throughput, with 100% redundancy and automatic fail-over from storage to SAN switch. The FC host ports in the Storage Array should be scalable to at least 128.</p>	<p>The storage systems shall have required no. 8/16 Gbps host Ports. Fiber-Channel Ports, shall work in load-sharing mode supporting multi-pathing, to provide in excess of 300MBps throughput, with 100% redundancy and automatic fail-over from storage to SAN switch. The FC host ports in the Storage Array should be scalable to at least 128.</p>	<p>2/4Gbps is out dated technology, now industry has moved to 8/16Gbps Fc connectivity, hence request you to please ammend the clause.</p>	<p>Specifications mentioned in tender are minimum. Bidder can offer higher specifications.</p>	Very Minor Change

65	M/s IBM	DETAILED TECHNICAL SPECIFICATION	38/C.1.1.	STORAGE CAPACITY	Under RAID 0+1 and under RAID 5 The preferred disc type is 140 (+/- 10%) GB or above 15,000 RPM FC / SAS disks Sufficient no of hot spare disc to be provided with a minimum of 1 hot spare for every 32 disks	Under RAID 0+1 and under RAID 5 Mix of SSD and 600GB 15K SAS Disk ( 10% capacity on SSD and 90% capacity on 600GB 15K SAS HDD) Sufficient no of hot spare disc to be provided with a minimum of 1 hot spare for every 32 disks	With latest change in the technology and advance functionality like Easy tier it is possible achieve better performance per TB by using less number of drives. This can be achieved by mixing of flash drive and enterprise SAS drive in same storage (mix of high performance flash drive and large capacity SAS drive will not only reduce the no of disk required but also reduce proportionally Rack space, Power consumption and cooling required) hence kindly amend the clause as to provide 80TB raw capacity by using 10% capacity on flash drive and 90% capacity on high performance 15K RPM SAS Drive	Bid will be evaluated as per tender specifications	No Change
66	M/s IBM	DETAILED TECHNICAL SPECIFICATION	53/m	Replication Software	Requisite replication software license for at least 2 TB log volume replication for achieving the storage based DR functionalities. The software shall support and licenses shall be configured for synchronous, asynchronous and journal based replication.	Requisite replication software license for at least 2 TB log volume replication for achieving the storage based DR functionalities. The software shall support and licenses shall be configured for synchronous and asynchronous replication.	journal based replication is OEM specific hence request you to please amend the clause.	Requisite replication software license for at least 2 TB log volume replication for achieving the storage based DR functionalities. The software shall support and licenses shall be configured for synchronous, asynchronous and journal based or equivalent replication.	Very Minor Change
67	M/s TANDBERG DATA	DETAILED TECHNICAL SPECIFICATION	48/J, 3	TAPE LIBRARY	Bidder shall supply sufficient no blank new tape media. The library shall be configured with minimum 6 x LTO Gen4 Gen6 drives and shall be scalable to 12 LTO Gen4 Gen6 drives in the same frame without stacking. The tape library shall support at least 44 drives and 1000 slots.	1. Drives are OK, But REC has not specified , How many Slots The Tape Library must have active in the initial Configuration Hardware- In DC & How many Slots Tape Library is reqd in DR . 2. As per the clause 50 Cartridges are asked in DC & 25 cartridges in DR- Should we assume the TL should be supplied with min 50 Slots Active in DC with 6 Drives & Scalable to 12 Drives in the Same Frame or more . Pl specify clearly. 3. Redundant Power Supply is Not mentioned- is this Compulsory or Optional in the Tape Library.		Tape Library slots should be activated based on 20 TB data backup requirement and as per point J3 on page 48, the tape library shall support at least 44 drives and 1000 slots.  Please refer point no. J1 on page 48 of tender document. It specifies "No single point of failure" for Tape Library.	Clarification
68	M/s HP	Detailed Technical Specifications	37/B.4	STORAGE ARCHITECTURE	The storage system shall be configured with minimum 32 GB of cache, expandable to 64 GB (at least 2 times of minimum). The system control cache, if required, shall be in addition to the above.	The storage system shall be configured with minimum <del>32 GB</del> 64GB of cache, expandable to 64 GB 128GB(at least 2 times of minimum). The system control cache, if required, shall be in addition to the above.	Since earlier storage were coming with a restriction in cache which is not a limitation now with modern storages, request you to consider higher cache.	Specifications mentioned in tender are minimum. Bidder can offer higher specifications.	Very Minor Change
69	M/s HP	Detailed Technical Specifications	Pg 38 / C 1.2	STORAGE CAPACITY	Sufficient No of Cold Spare Disc (Not to be installed) of each type & capacity to be provided.	Completely delete	Since Hot spare are already proposed, cold spare disks are not required. If it is your requirement, please mention the number of cold spare disks that needs to be supplied	Minimum of 1 cold spare disk for every 32 installed disks of each type and capacity to be provided. Or minimum 3% of raw capacity of storage should be provided as cold spare disks	Very Minor Change
70	M/s HP	Detailed Technical Specifications	Pg 41 / F 1	FIBER CHANNEL (FC) SAN SWITCHES	Two numbers of chassis fiber channel switches of the same configuration shall be provided and configured. The switches shall be rack mountable and configured in 19" OEM's SAN racks. The offered SAN switches shall be of OEM make or of Brocade / Cisco / McData.	Two numbers of <del>chassis</del> fiber channel switches of the same configuration shall be provided and configured. The switches shall be rack mountable and configured in <del>19" OEM's SAN racks</del> . The offered SAN switches shall be of OEM make or of Brocade / Cisco / McData.	With increasing the number of bandwidth on SAN, you would not need more than 80-90 ports per switch which can be provided from standard SAN switches (don't need chassis switch). Also if additional ports are required, multiples of 96 ports switch can be trunked and cascaded for more ports	Bid will be evaluated as per tender specifications.	No Change
71	M/s HP	Detailed Technical Specifications	Pg 49 / J 5	TAPE LIBRARY	The tape library shall have high performing robotics enabling to deliver minimum 180 exchanges per hour.	Delete this point	This is not relevant in case above point is amended	Bid will be evaluated as per tender specifications.	No Change

72	M/s HP	DETAILED TECHNICAL SPECIFICATION	Page 50, Pt A1	FCIP Router	<p>One (01) number FCIP add-on card with two (02) numbers of IP ports along with minimum 16 FC ports shall be provided and integrated with each of the existing 2 nos. of SAN director switches at Primary site. The offered equipment should be able to work seamlessly with existing SAN system of primary site. It should provide protocol conversion for storage to storage replication over IP network with the following features :</p> <p>Fibre cabling for connecting FCIP IP ports to core router shall be provided. Cabling shall be done with minimum 2 runs of minimum 6 core fibre sx cable from SAN director rack to Core router rack. The cables shall be terminated using pig tail connectors. All necessary accessories like LIU at both ends shall be provided.</p> <p>SAN Switch must support IPSEC encryption to ensure integrity of data over FCIP.</p> <p>SAN Switch must support compression of Data over FCIP.</p> <p>The FCIP add-on card must support Fabric routing for FCIP to enable cross-fabric connectivity and selective transfer of data</p>	Delete this point	<p>Since now a days the storage comes by default with the IP ports for replication a separate FCIP router is not required. Also, the encryption can be achieved at the firewall level which will be a redundant technology. So request you to remove this component</p>	Bid will be evaluated as per tender specifications	No Change
73	M/s Sanovi	ELIGIBILITY CRITERIA	Page no. 22, point 1	Mandatory Requirements for OEM	The OEM shall have ISO 9001:2008 and ISO 14000 certifications.	Request you to exempt software components of the bid from this clause. We understand it is mandatory requirement for Hardware OEMs. Kindly confirm		This condition is to be met by Hardware OEM only, those are providing major items like Storage, Servers & tape Library	Clarrification
74	M/s Sanovi	ELIGIBILITY CRITERIA	Page no. 22, point 2		The minimum average annual turnover of the OEM shall be Rs. 250 Crores in last 3 financial years (FY 2011-12, 2012-13 and 2013-14).	We understand this is required for Hardware OEMs as software components with low value would not have that kind of turnover. Kindly confirm		This condition is to be met by Hardware OEM only, those are providing major items like Storage, Servers & tape Library	Clarrification
75	M/s Sanovi	ELIGIBILITY CRITERIA	Page no. 22, point 3		The OEM vendor shall have at least one service center within the Goa State with sufficient infrastructure.	Being a software component, we provide support from remote support centre in India and so no local service centre is required. Kindly allow support centre in India for software component. Onsite support can be provided on critical need basis		This condition is to be met by Hardware OEM only, those are providing major items like Storage, Servers & tape Library	Clarrification