

S. No	Query Type Technical/ Commercial	Page No	Clause No	BRPL Clause	Bidder Query	BRPL Replies
1	TECHNICAL	Page no. 73	M18 under section 'Checklist for System Feature requirements to be submitted with Technical Evaluation	RTO and RPO as per laid of expectation basis criticality of system/ application. Preference is to have RTO and RPO of less than 1 hour	Request you to mention this requirement under Service related scope as this is not the part of functional specifications. Compliance may not be furnished for this, as the RPO and RTO will be dependent upon lot of factors and not solely on Backup solution.	This is not required for backup solution
2	TECHNICAL	Page no. 74	M33 under section 'Checklist for System Feature requirements to be submitted with Technical Evaluation	Ability to have Self Services for User system Restoration/ also enable for Helpdesk to restore user data. Proposed solution should support integration with existing AD, LDAP,NIS, SSO.	Please specify the name of the solution with which the integration will be required.	Proposed solution should support integration with existing AD, LDAP,NIS, SSO.Pls mention exceptions if any
3	TECHNICAL	Page no. 75	M36 under section 'Checklist for System Feature requirements to be submitted with Technical Evaluation'	The proposed Backup Solution must offer	Please rephrase this clause as'The proposed Backup Solution must offer	
				FETB (Frontend TB) & BETB (Backend TB	BETB (Backend TB	The proposed Backup Solution must offer FETB (Frontend TB) & BETB (Backend TB after data reduction technologies like deduplication and compression) / Instance Based Licensing which should Include unlimited Capacity Back Up , deduplication, encryption and compression) capacity/Instance -based perpetual licensing.
				after data reduction technologies like deduplication and compression) including	after data reduction technologies like deduplication and compression) including	
				unlimited Operating instances and database instances, deduplication, encryption and compression) capacity-based	unlimited Operating instances and database instances, deduplication, encryption and compression) capacity-based	
				subscription/perpetual licensing. Brief on the	subscription/perpetual licensing. Brief on the	
				exact licensing approach should be stated	exact licensing approach should be stated' Request the suggested change as the backup solution will dedupe and compress the backup data and not the data at the source.	ok
4	TECHNICAL	Page no. 77	M52 under section 'Checklist for System Feature requirements to be submitted with Technical Evaluation'	Ability to support long term data archival to:		
				o Third party local storage		
				o Proprietary cloud - native to the platform provided and support granular file level recovery (to minimize cloud read and egress costs) or Third party cloud (Example: AWS, Azure, GCP, etc.) storage		
				o Strong security - Encryption in motion and at rest		
				o Ability to perform semi-annual or annual recovery testing		
				o Detailed documentation of required steps for proper backup and recovery [to be submitted post implementation]		
				o Should adhere to India IT Act 2000 or better	Request you to remove this clause as the same may not be applicable from Backup solution perspective.	ok
				o Ability to perform searches on archived files in the event of a legal requirement		
				GDPR compliant	Request you to remove this clause as the same may not be applicable from Backup solution perspective. Adherence to the mentioned compliance requires Sensitive Data Governance.	ok
				HIPPA compliant	Request you to remove this clause as the same may not be required from Backup perspective.	ok

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				FIPS compliant		
				Write Once Read Many SEC 17a-4(f)		
				Certification		
				PCI DSS	Request you to remove this clause as the same may not be applicable from Backup solution perspective.	ok
				Single patch upgrade for backup software, backup appliance, file system, security updates	Request you to remove this clause as the backup solution and storage/server can be from different vendors to provide the best in class solution. Hence, patches, fixes may not be supplied from the single source from hardware and software perspective.	ok
5	TECHNICAL	Page no. 78	M57 under section 'Checklist for System Feature requirements to be submitted with Technical Evaluation	Proposed solution should support full indexing and text search.	Request you to elaborate the requirement. Full indexing is required on what kind and amount of data	It is required on backed up data for data search
6	TECHNICAL	Page no. 78	M60 under section 'Checklist for System Feature requirements to be submitted with Technical Evaluation	Backup and restoration for the critical applications an DB should not exceed the backup window of 4hrs. The information related to DB Size, Host Systems, etc. will be provided and the bidder has to shared estimated time frame for backup stating the pre-requisites to achieve the 4 hrs. window	Request you to specify the source database details such as size, type of backup and daily change rate. The backup window will be dependent upon multiple factors such as source read, transmission media and target write throughput. Hence, more information on the source will be required to comment upon the backup window.	Database whose backup is required and whose databackup solution should be capable is part of RFP
7	TECHNICAL	Page no. 78	M61 under section 'Checklist for System Feature requirements to be submitted with Technical Evaluation'	The proposed backup solution should be configured so as to achieve the defined SLA in terms of Backup Window and Restoration - basis type of Data (viz. Database, Files, VM Images)	Kindly elaborate on the SLA requirements. Request you to mention this requirement under Service related scope as this is not the part of functional specifications.	Data whose backup is required and whose databackup solution should be capable is part of RFP
8	TECHNICAL	Page no. 68	BACKUP AND DISASTER RECOVERY SPECIFICATIONS	<ul style="list-style-type: none"> · Current DB Size is 20TB (Mix of Oracle,MS SQL,Mysql) scalable up to 50 TB · Current application base size is approx 30 TB.Application count is approx 250 · File Storage data is 150 TBwith 10% increment every year 	Please clarify, whether the specified amount of DB, app and file data is required to be considered for the backup BoQ and sizing calculations. Also, does the mentioned number include the YOY growth or it should be considered 10% above the mentioned number.	Needs to be considered for sizing and growth is above the size given
9	TECHNICAL		NIT_1039_Corrigendum4.pdf	M92 Storage specification	Please clarify if File or Block storage is required? What is the file storage capacity required? What protocols support is required? What is the R/W ratio and Block size for IOPs?	Unified storage required.Specification already shared

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10	TECHNICAL		M92 Point 2	100000 IOPS and 8GB/s Throughput 100000 IOPS	<p>As per the performance parameter factor below is the justification for IOPS Consideration instead of throughput :</p> <p>Real-world Performance: IOPS provides a more accurate representation of real-world performance as it measures the number of read and write operations that can be executed per second. This metric directly impacts application responsiveness and user experience, making it a critical consideration for storage performance.</p> <p>Application Efficiency: Many applications, especially databases and virtualized environments, heavily rely on random I/O patterns rather than sequential I/O. Prioritizing IOPS ensures optimal performance for these applications, enhancing overall efficiency and productivity.</p> <p>Latency Reduction: High IOPS storage solutions can significantly reduce latency, minimizing the time taken for data retrieval and storage access. Low-latency storage is crucial for delivering swift responses in data-driven environments and mission-critical applications.</p> <p>Enhanced Scalability: As workloads increase, the demand for IOPS typically rises as well. IOPS-centric storage solutions can scale more effectively to handle growing workloads, ensuring sustained performance without sacrificing efficiency.</p> <p>Mixed Workloads: Modern data centers often host diverse workloads with varying I/O characteristics. An IOPS-focused storage solution caters to mixed workloads more effectively than a purely throughput-driven approach, accommodating different application requirements.</p> <p>Virtualization Benefits: Virtualized environments, commonly used in today's IT landscape, benefit significantly from IOPS-focused storage. Virtual machines often generate a large number of small I/O operations, necessitating high IOPS capabilities for smooth operations.</p> <p>Storage Efficiency: By focusing on IOPS, it becomes possible to optimize storage resource utilization. The ability to handle more IOPS with</p>	<p>Unified Storage required with Capacity as per RFP. Minimum IOPS Required 100000 .NAS must be with minimum 256 GB ECC RAM and upgrade up to 512 GB or higher. Support for SAS/SATAIII 3.5" HDD or SSD. Offered NAS solution must support at least 60 bay HDD slot and should be at least 300 TB usable capacity from day one after RAID 6</p> <p>The storage should be able to recover modified data through appropriate means The storage must support Replication of volume with Snapshot retention feature. The storage must support CIFS, NFS and FTP protocol The storage system should provide features for NAS quota management, user management, CIFS & NFS protocols for windows and Linux users. All required licences (if any) should be included for the same from day one. Must support GUI Must come with require accessories, cable and connector from day one Dual Redundant Hot-Swappable Power Supplies 2 x Intel CPUs, 12 cores per Array, 1.7GHz, 64 Bits</p>
11	TECHNICAL		M92 Point 3	8 X 25G/10G ports per array, Both copper and fiber connec	<p>As per the network connectivity configuration, requesting you to kindly amend the same to : 8 x 10GB FC ports as SAN switch has low latency, scalability, and advanced data management features. SAN switches provide dedicated paths for storage traffic, ensuring better performance and data isolation. With built-in redundancy and failover mechanisms, they offer high availability and uninterrupted data access. SAN switches simplify storage management and facilitate seamless integration with backup and disaster recovery solutions. Their centralized management and security features enhance data integrity and compliance. Overall, investing in a SAN switch guarantees superior data performance, efficiency, and security for organizations dealing with substantial amounts of data and critical applications.</p>	
12	TECHNICAL		Support Tenure	10 year (5+5) Year Support 7 Year Support	<p>Requesting you to kindly amend the same to 7 year support as Technology evolves rapidly, and new innovations emerge within shorter cycles. Choosing a 7-year support timeframe allows organizations to adopt newer and more efficient technologies sooner, staying competitive and leveraging the latest features.</p>	<p>Minimus 10 Year Support for device should be available</p>
13	TECHNICAL	Page No 20	Delay In Maintaining SLA for Structured And Unstructured Data during backup/restoration	<p>The proposed backup solution should be configured to provide backup/ restoration throughput of at least 25 TB/hour. Even on annual increase of data by 15%, the throughput of the solution should be maintained at 25TB/Hr. The solution should be capable to generate SLA report of backup and restoration of structured and unstructured data.</p>	<p>We are factoring the backup solution as per the requirement.</p> <p>Other infra apart from backup solution will be taken care by customer for achiving throughput as throughput depends on the customer's environment like network bandwidth etc. Pls confirm is our understanding is correct.</p>	<p>Bidder need to specify what in terms of bandwidth is required. Designing of solution to achive required throughput and all accessories except bandwidth will be in bidders scope</p>
14	TECHNICAL	Page No 69	System Requirements	<input type="checkbox"/> Ability to export backups to external drives	<p>Since, bidder need not to supply any external drive . Request you to pls elaborate this clause.</p>	<p>No External drives not required but capability required</p>
15	TECHNICAL	Page No 69	System Requirements	<input type="checkbox"/> The bidder has to define bandwidth requirement for enabling the online sync between DC and DR in solution design submitted .	<p>Since, DR not required currently. BOQ is for DC only. Pls confirm is both backup boxes are placed in DC with High Availability.</p>	<p>Yes but when same is to be shifted to DR location support needs to be provided for IP related configuration by bidder</p>

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16	TECHNICAL		M7.	Journal File System (IFS, JFS2]	Request you to pls remove IFS as it is OEM specific.	ok
17	TECHNICAL		M18.	RTO and RPO as per laid of expectation basis criticality of system/ application.Preference is to have RTO and RPO of less than 1 hour	Hope this clause is for VMWare backup environment only. But, for Other dbs like oracle, we need to leverage oracle dataguard and in that case, RTO and RPO might differ.	RTO,RPO is for only backup and restoration not for DR activation
18	TECHNICAL		M20.	Ability to recover from Ransomware with faster recover time (complying with RTO requirement). Bidder to share brief details on the approach	BACKUPS are immutable, with the defined retention policy. We are providing DPA. Anomaly detection tool to alert the anomalous behaviour. If air-gap type of solution is needed, request you to pls add that offline ML based intelligence solution is required for Ransomware protection.	Ransomware protection is bidders responsibility and solution needs to be designed accordingly
19	TECHNICAL		M52.	o GDPR compliant o HIPPA compliant o PCI DSS	request you to pls remove this clause.	ok
20	TECHNICAL		M56.	Solution should support defining of bandwidth/QOS .BRPL with the bidder will jointly define/ determine the same for different host based on the various factors attributable for performance.	This is totally dependent on existing BSESapplication, network and server details	QOS facility sis required in backup solution to control bandwidth consumption
21	TECHNICAL		M71.	Must support RAID 6 or equivalent technologies with SATA/NLSAS/SAS technology along with hot-spare disks for each disk shelf (8:1 ratio) for Backup Media. For Appliance models, solution should support erasure coding to resiliency for disks SATA/NLSAS as well as controller failure	Request you to pls remove 8:1 ratio as this is OEM Specific.	ok
22	TECHNICAL		M77	The solution should preferably be software defined such that it can be used on any qualified x86 hardware without requiring any hypervisor	If bidder is providing software defined solution, then the bidder is not able to provide the asked and required throughput. Therefore, request you to pls remove this clause.	Software should be able to be installed on any hardware
23	TECHNICAL		M81	The solution should support masking of data for confidential data before giving it to test/dev team for their use	Request you to pls elaborate this clause.	This feature is required to facilitate usage of backup data for development purpose
24	TECHNICAL		M82.	The solution should support running application like vulnerability check for complete enviroment directly	Pls confirm why vulnerability check is required.	Vulnurability check is mandatory for security reasons
25	TECHNICAL		M93.	The Backup Hardware & software should have life & support for 10 Years from the date of installation & commissioning.	pls confirm do bidder needs to quote entire solution with 7 years in place of 10 years.	Bidder needs to quote with 5 years support and AMC charges for next 5 years
26	TECHNICAL		General Query	General Query	We are assuming that the backup solution is connected to the network only. NO SAN connectivity is required in the backup solution. Pls confirm.	It is part of design and will be evalutaed during technical evalauation
27	TECHNICAL		General Query	General Query	We are assuming that no backup needs to be done in DR . Bidder needs to replicate the DC backup data to DR Only.	ok
28	TECHNICAL		General Query	General Query	Pls confirm is there any new workload run in DR apart from DC .	ok
29	TECHNICAL		M36	The proposed Backup Solution must offer FETB (Frontend TB) & BETB (Backend TB after data reduction technologies like deduplication and compression) including unlimited Operating instances and database instances, deduplication, encryption and compression) capacity-based subscription/perpetual licensing. Brief on the exact licensing approach should be stated	The proposed Backup Solution must offerFETB (Frontend TB) / Socket based licensing for backup software & BETB (Backend TB) capacity based license for backup appliance/ VTL after data reduction technologies like deduplication and compression) including unlimited Operating instances and database	ok

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30	Commercial		Payment Terms	<p>Payment will be made as per the following schedule: -</p> <p>A. Hardware Cost for both DC & DR (including all related hardware)</p> <p>B. Software Cost (including all related software)</p> <p>C. Implementation Cost</p> <p>Deliverable : Amount of Payment</p> <p>Delivery of all the required hardware & Software (Complete BOM at DC & DR) - 40% of A</p> <p>Sign Off of complete solution with all modules/functionalities and registration of support with OEM - 30% of A + 70% of B + 70% of C</p> <p>After six months of sign-off - 15% of (A+B+C)</p> <p>After 1 year of sign-off - Remaining 15% of (A+B+C)</p>	<p>Deliverable : Proposed Payment Terms</p> <p>Delivery of all the required hardware & Software (Complete BOM at DC & DR) - 90% of A + 90% of B</p> <p>Sign Off of complete solution with all modules/functionalities and registration of support with OEM - 5% of A + 5% of B + 95% of C</p> <p>After three months of sign-off - Remaining 15% of (A+B+C)</p>	<p>New payment terms</p> <table border="1"> <thead> <tr> <th>Deliverables</th> <th>Eligible Amount</th> </tr> </thead> <tbody> <tr> <td>Delivery of all the required hardware & Software (Complete BOM at DC & DR)</td> <td>40% of A (i)+90% of A(ii,iii,iv)+20% of B</td> </tr> <tr> <td>Sign Off of complete solution with all modules/functionalities and registration of support with OEM</td> <td>50 % of A (i)+ 70% of B + 90% of C</td> </tr> <tr> <td>After six months of sign-off</td> <td>10 % of (A+B+C)</td> </tr> </tbody> </table>	Deliverables	Eligible Amount	Delivery of all the required hardware & Software (Complete BOM at DC & DR)	40% of A (i)+90% of A(ii,iii,iv)+20% of B	Sign Off of complete solution with all modules/functionalities and registration of support with OEM	50 % of A (i)+ 70% of B + 90% of C	After six months of sign-off	10 % of (A+B+C)
Deliverables	Eligible Amount													
Delivery of all the required hardware & Software (Complete BOM at DC & DR)	40% of A (i)+90% of A(ii,iii,iv)+20% of B													
Sign Off of complete solution with all modules/functionalities and registration of support with OEM	50 % of A (i)+ 70% of B + 90% of C													
After six months of sign-off	10 % of (A+B+C)													
31	Commercial		Payment Terms	<p>Payment will be made as per the following schedule: -</p> <p>A. Hardware Cost for both DC & DR (including all related hardware)</p> <p>B. Software Cost (including all related software)</p> <p>C. Implementation Cost</p> <p>Deliverable : Amount of Payment</p> <p>Delivery of all the required hardware & Software (Complete BOM at DC & DR) - 40% of A</p> <p>Sign Off of complete solution with all modules/functionalities and registration of support with OEM - 30% of A + 70% of B + 70% of C</p> <p>After six months of sign-off - 15% of (A+B+C)</p> <p>After 1 year of sign-off - Remaining 15% of (A+B+C)</p>	<p>Deliverables : Amount of Payment</p> <p>Delivery of all the required hardware & Software (Complete BOM at DC & DR) - 80%</p> <p>Sign Off of complete solution with all modules/functionalities and registration of support with OEM - 20%</p>	<p>covered in point 30</p>								

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32	TECHNICAL		Backup Solution	M36 The proposed Backup Solution must offer FETB (Frontend TB) & BETB (Backend TB after data reduction technologies like deduplication and compression) including unlimited Operating instances and database instances, deduplication, encryption and compression) capacity-based subscription/perpetual licensing. Brief on the exact licensing approach should be stated	<p>Modification/ Addition Required:-</p> <p>M36 The proposed Backup Solution must offer FETB (Frontend TB) & BETB (Backend TB after data reduction technologies like deduplication and compression) / Instance Based Licensing which should Include unlimited Capacity Back Up , deduplication, encryption and compression) capacity/Instance -based perpetual licensing.</p> <p>Reason:-</p> <p>Capacity Licenses are Predictive and never offer Investment protection, it offers a loss of around 20-25% to the organization Per year.</p> <p>Subscription / Perpetual Both Should not be given as an option, BSES should specify either Subscription of Perpetual, Since tendering for renewal might take some time hence Perpetual licenses are always preferred.</p> <p>Having Unlimited Capacity License works much better TCO as capacity is always predictable, where as OS Instances and DB Instances will always be taken as a Capex and on management decision for growth and expansion.</p>	ok
33	Commercial		Bid Submission	Last date of receipt of bid documents : 27.07.2023, 15.00 HRS		Last date of receipt of bid documents : 27.09.2023, 15.00 HRS
34	Commercial		Bid Submission	Date & time of opening of tender – Part A: 27.07.2023, 15.30 HRS		Date & time of opening of tender – Part A: 27.09.2023, 15.30 HRS