

**MEGHNA BANK LIMITED.
INFORMATION TECHNOLOGY DIVISION**



February 28, 2022

**TENDER SCHEDULE:
SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF HCI SERVERS SOLUTION &
ENTERPRISE BACKUP SOLUTION for DIFFERENT SERVICES OF MEGHNA BANK LIMITED.**

01. TERMS AND CONDITIONS

1.1 Tender Preparation:

- (I) Tenders must be submitted in two-envelope system i.e. one Technical Proposal & one Financial Proposal mentioning Technical/Financial Proposal on the top of each envelope. These two proposals will be submitted together in a third envelope. All the envelopes should be sealed & signed.
- (II) Technical proposal will be opened on the specified date in the Tender Notice. Date of opening of the financial proposal will be communicated later on.
- (III) The bid forms must be filled in through computer printer or in typing without overwriting and without any erasing and modifications and when completed shall contain all the required information.
- (IV) The Offer should be submitted in a sealed cover.
- (V) The Offer shall be marked as “Supply, Installation, Testing and Commissioning of HCI server & Enterprise Backup Solution with associate network equipment’s for different services of Meghna Bank Ltd.”
- (VI) Offers in the bid should be free from any condition and any conditional offer will disqualify the bidder. Unless otherwise provided herein bids shall be submitted on a firm and final price basis including all charges. Each page of the offer must be signed and sealed properly by the authorized representative of the bidder and filled in where applicable.

1.2. Award Finalization and subsequent actions: The Bank will award the Contract to the Bidder whose offer is found to be substantially responsive and who has offered technically suitable proposal & whose quoted price is within the acceptable limit of the Bank. After selection of the vendor, the vendor will maintain close contact with the client to sort out details of works to be undertaken.

1.3. Meghna Bank reserves the right to accept or reject any or all the tenders without assigning any reason whatsoever.

1.4. In case of any error detected in the Bill of Quantities or in other documents at any time, Meghna Bank reserves the right to rectify such error.

1.5. The detailed specifications, terms and conditions are incorporated in this tender schedule.

1.6. Meghna Bank is not bound to accept the lowest price it will be comparison matrix goes with combined technical & financial consideration.

1.7. For the purpose of warranty period, work completion time will be counted from the date of installation, testing, commissioning.

1.8. After commencement, work may be delayed due to unforeseen reasons; in such cases, no compensation will be entertained.

1.9. No tender document will be issued / received by mail.

1.10. Import documents should be issued in favour of bidder itself.

1.11. Tender offer may be rejected for any one of the reasons listed herein under. Decision of the Bank will be final in this regard:

- a) Failure to submit Tender before the specified closing time.
- b) All or any pages of the Tender document are not signed and sealed by the Tenderer.
- c) Failure to comply with Specifications annexed herewith.
- d) Any false statement or evidence of fraud.
- e) Failure to comply with all the instructions of the Tender.
- f) Any alteration in the tender schedule.
- g) Failure to submit any document as specified in paragraph 3 of this schedule.
- h) Any discrepancy, overwriting, erasing, ambiguity or omission in quoting rate and in furnishing the tender document.

1.12. No price escalation will be entertained.

1.13. Other Terms & Conditions:

- (I) Bank has the right to execute full or part of the work.
- (II) The Vendor should consider that the Bank can be requested to do some extra work those are not specifically mentioned in the schedule, but might be necessary for the completion of the work.
- (III) No tender will be accepted for partial quantity.
- (IV) **The bid owner must maintain "Business Account" with Meghna Bank Limited. All Payment will be disbursed through the Business Account.**

1.14. Delivery:

- (I) Delivery period: To be mentioned by the bidder.
- (II) Delivery of the items to be made at IT Division/Head Office or designated place as desired by the Bank.
- (III) Penalty for Delay in delivery: For any delay in delivery and implementation of the system solely due to failure on the part of the BIDDER, the BIDDER will be subject to penalty charges of 0.5% per week of total price.

02 TENDER SUBMISSION

2.1. The Tender shall be submitted to the following address:

The Chairman, Procurement Committee, Meghna Bank Ltd,

Address: Subastu Imam Square, 65 Gulshan Avenue, Gulshan-1, Dhaka 1212.

2.2 The Tender documents shall be dropped in the tender box on Date: **March 16, 2022 5:00 PM**. No tender shall be entertained after the specified time and date. Tender papers must be properly filled in, sealed and signed by authorized official with bidder’s name, address, etc.

2.3. No Tender document will be received by mail.

2.4. Technical Clarification:

For any technical Clarification, please contact with the following Bank’s Official:

Name: Mr. Md. Mamunor Rashid

Cell: +880 1730700992

E-mail: mamun.rashid@meghnabank.com.bd

03. PAPERS & DOCUMENTS TO BE SUBMITTED

3.1 Valid Registration/ownership document, VAT & TIN certificate, up-to-date Trade License, & Others Official documents

3.2 **Manufacture Authorization Letter. (MAL)**

3.3 Copies of work-order(s) and performance certificate(s) of execution of HCI solution & Enterprise Backup solutions in Banking, NBFi & Enterprise industry.

3.4 List of Team Members with position and technical qualification (Certified or not) for the mentioned solution with the implementation scope and client list.

3.5 List of clients with whom have AMC running for the mentioned solution.

04. SCOPE OF WORK

LOT – A, HCI Server solution

4.1 Meghna Bank Limited intends to purchase HCI Server solution for different services.

Requirement for Datacenter:

DC					
Projects	CPU (Physical Core)	Usable Memory (TB)	Effective/Usable Storage (All-Flash) & Performance	Availability Guarantee	ToR & Storage Switch (2+2)
Tech Refresh	Min. 512	12TB	200TB Usable Without Data Reduction (deduplication and compression) features enables.	99.9999%	Redundant Switches for each Category; must be

Information Technology Division

			<p>No other features like thin provisioning, snapshot shall not be considered.</p> <p>**Deduplication and compression shall be inline and variable block.</p> <p style="text-align: center;">**</p> <p style="text-align: center;">&</p> <p>IOPS must be minimum 200k keeping the data reduction features enabled; 60:40 Read: Write ratio; 8k IO Block</p>		<p>minimum 25G port with optic cable connectivity</p>
--	--	--	---	--	---

Requirement for Disaster Recovery Site:

DR					
Projects	CPU (Physical Core)	Usable Memory (TB)	Effective/Usable Storage (All-Flash) & Performance	Availability Guarantee	ToR & Storage Switch (2+2)
Tech Refresh	Min.384	8TB	<p>150TB Usable Without Data Reduction (deduplication and compression) features enables.</p> <p>No other features like thin provisioning, snapshot shall not be considered.</p> <p>**Deduplication and compression shall be inline and variable block.</p> <p style="text-align: center;">**</p> <p style="text-align: center;">&</p> <p>IOPS must be minimum 150k keeping the data reduction features enabled; 60:40 Read: Write ratio; 8k IO Block</p>	99.9999%	<p>Redundant Switches for each Category; must be minimum 25G port with optic cable connectivity</p>

LOT – B, Enterprise Backup Solution:

Requirement for Datacenter:

DC					
Projects	CPU Core	Usable Memory	Effective/Usable Storage with license	Availability Guarantee	Network
Enterprise Backup Solution	Min. 12	Min.128 GB	<p>Backup Software with 20 TB (Front End capacity) Hardware with minimum 140TB usable capacity each.</p>	99.9999%	<p>Min 4x1 G Eth Min 4 x10/25 GbE/ SFP+ Min 4 x16GB FC with optic cable connectivity</p>

Requirement for Disaster Recovery Site:

DR					
Projects	CPU Core	Usable Memory	Effective/Usable Storage with	Availability Guarantee	Network
Enterprise Backup Solution	Min. 12	Min. 128 GB	<p>Backup Software with min. 20 TB (Front End capacity) Hardware with minimum 140TB usable capacity each.</p>	99.9999%	<p>Min 4x1 G Eth Min 4 x10/25 GbE/ SFP+ Min 4 x16GB FC with optic cable connectivity</p>

4.2 WORK COMPLETION TIME:

4.2.1 The client will issue a work-order to the successful bidder upon acceptance of the offer.

4.2.2 Work must be completed within the time specified in the work order/Notification of Award.

4.3 QUALITY ASSURANCE:

The Vendor shall comply with the technical specification as mentioned in the Tender Schedule.

4.4 TRAINING FOR OPERATION & TROUBLESHOOTING:

Product related full system administration/certification training from OEM or certified solution center for 5 people in 2 slots.

05. WARRANTY, AMC & AFTER SALES SERVICE

5.1. High level Service Level Agreement (SLA):

Severity Level	General Evaluation Criteria	Response Time (24/7/365)	Resolution Time (24/7/365)
High	A problem that critically effects on ability of doing regular business. System functionality is unavailable or down due to software failure.	Phone Mail Immediate for High	04 Hours
Medium	Any software component failure that leads to degradation of system performance.	01 Hour for Medium	08 Hours
Low	Software is having minor issue. Insignificant error without impacting usual business or system performance.	4 hours for Low	24 Hours

5.2 Penalty Clause on Service Failure

1% of the work order value will be penalized on each failure to meet service level. If resolution time is greater than agreed service level, then 0.5% will be penalized for each hour delay for severity level 'High' and 0.25% will be penalized for each hour delay for severity level 'Medium' and 'Low'.

5.3 Scope of Installation, Testing, Commissioning & Warranty Service:

The scope of service is as below but not limited to:

- OEM & Vendor will ensure the complete proposed solutions Installation, Testing, Commissioning (PSO or certified SI), Warranty, AMC & Support service.
- Vendor to quote AMC & Support for 3 years. 4th & 5th year AMC separately for the offered solution for each type of product.
- Maintain all the Solutions support by 24/7/365 days without any interruption.
- High & Low level design will be prepared by bidder before implementation by analyzing Meghna Bank's existing network & system infrastructure architecture.
- After successful implementation by covering every possible areas vendor will provide the "As build Document".
- Provide patch, upgradation, Security Enhancement, Bug fix, New project integration as required to maintain compliance and standard practice preferably without any service interruption
- Bridge between OEM and Meghna Bank for knowledge transfer, problem troubleshoot and best use of the product
- Meghna Bank should have direct access to OEM portal to log a case and communicate with OEM global support on any issue.
- Ensure that Meghna Bank can use all the product facilities as and when required
- Ensure the new integration hosts/servers/backup system/storage/software/security items as per requirement of the Bank
- To ensure single point of contact, backup contact and support contact escalation matrix

- Vendor must repair any defect/replace any parts of the solution and render services in connection there to at its own cost.
- To provide a quarterly report of the health status of the systems/solution/software along with performance forecast and performance improvement plan
- During the migration or implementation 100% data consistency will be ensured by the Vendor/OEM

NB: A detailed level SLA with all clauses will be signed after select the awardee.

06. PRICE

- 6.1. Prices must be quoted both in figures & in words. If there is any discrepancy between the price in figure & the price in words, the later one will prevail.
- 6.2. The client reserves the authority to rectify any computation error in the price quotation of the bidders.
- 6.3. The Bidder has to complete the entire work within the stipulated period as agreed with both parties, in failure 5% of total contract value will be deducted for each Week delay but Penalty will be considered pro-rata basis. Bank will not consider any delay in delivery unless due to force majeure or mutually agreed extension.
- 6.4 Financial offer should contain the bill of material with details pricing information
- 6.5 Financial offer should use separate sheet for each lot in case bidder participate for more than one Lot.
- 6.7 Validity of bids: bids shall remain valid, at a minimum, for the period of 90 Days after the deadline date for bid submission.

07. PAYMENT & SECURITY

- 7.1. The client may issue single work order or in phases. The vendor may submit separate bill/invoice for every unit and client will make payment accordingly.
- 7.2. Meghna Bank will deduct all applicable withholding income Tax and VAT from the invoice at the time of payment as per Government Rules.
- 7.3. Successful bidder(s) to be agreed for submission of a performance security amounting 10% of the total price in the form of bank guarantee at the time of receiving work order or 10% security deposit of gross invoice will be deducted & retained for 3 (Three) months. This amount will be refunded after 3 (three) months from the date of successful delivery, handover and satisfactory performance of the item.
- 7.4. 90% payment will be released after successful product delivery, installation, configuration and UAT. The bill should be submit with work order, Mushak 6.3, original challan which is duly signed by authorized personnel of Meghna Bank Limited. Payment will be made through Bank Account only.

08. TECHNICAL COMPLIANCE SHEET For

LOT – A, HCI Server solution

SL	Item	Description	Bidders Response
1. Hyper Converged Infrastructure Solution Specifications			
1.1	Brand	Internationally reputed brand and the proposed solution should be a brand listed in the Gartner's magic quadrant's section. Include the most recent Gartner report.	
1.2	Model	Specify the model name of the proposed System along with the technology used.	
1.3	Country of Origin	Specify the Country of origin of the proposed system.	
1.4	Manufacture/ Assembled in	Specify the country where the proposed system manufactured (assembled) in.	
1.5	Hardware Specifications for DC and DR	Proposed Solution should come with fully redundant field replaceable components.	
		Proposed Solution should have independent hot swappable components which can be replaced and serviced without having the need to power down.	
		OS Support- Should Support Microsoft Windows Server 2019 or latest, Red Hat Enterprise Linux 6, 7 or latest, SUSE Linux Enterprise Server 10 and 11, VMware ESX latest release, Oracle OVM latest release	
		Failure Alerting Mechanism- Please mention.	
1.6	License	The solution must come with bundle of license, which has to be clearly mentioned in OEM's license portal. The platform and environment should be customizable as per the requirement of the bank.	
1.7	High Availability	The solution must be able to survive single node failures and it should in no way affect/degrade the production services & usable resources to the end user application hence solution should be proposed in N+1 configuration. There should be provision to define cluster level failover with the solution, enough resource should be justified for such HA setups.	
1.8	Solution Key Requirements	The proposed Solution must combine/integration with virtualization, compute, storage, management, and data protection with a single point of support for the hardware and software.	
		The proposed solution should come with preinstalled various software including Service oriented software (SOS), replication with management and associated hypervisor. It should include all hardware and software necessary to ensure high availability mode of operation.	
		The proposed solution should have single management Console to manage integrated Compute, Storage and Hypervisor. It should also contain a dashboard to manage and provision virtual machines, network, and storage, monitor performance and manage events & alerts & generate reports.	
		Technology must be software defined and the solution should provide enterprise-class storage services using latest x86 server infrastructures.	
		Solution should include an application and infrastructure performance management tool quoted as part of the solution to improve operations and provide deep infrastructure performance insight.	

		Solution should support live migration of running virtual machines from one physical node to another with zero downtime, continuous service availability, and complete transaction integrity transparent to users.	
		Solution should include a variety of features to proactively identify, and fix issues related to data consistency and integrity, bit rate failures, and hard disk corruption	
		The proposed solution must support connectivity (Storage extension) to 3rd party bare metal servers (for optimized dB licensing on physical servers) to storage cluster & use the cluster capacity like (but not limited to) iSCSI, NFS target.	
		Hardware must be available in multiple configurations with the support of “pay-as-you-grow” approach for future scale out.	
		The solution should support to connect external storage devices (like NAS, SAN etc.) and should be useable as part of the Solution, for the purpose of Backup. There should not be any hardware vendor locking while connecting the external storage/s.	
1.9	Scalability	Max scalability of proposed solution must mention by the bidder	
		The solution must automatically discover and non-disruptively, adds each new node or appliance and rebalances resources and workloads across the cluster.	
		The solution should be able to scale up by support of adding additional nodes to the cluster at a later point of time to handle compute, expansion with zero down time.	
		Data compression /deduplication /erasure coding techniques should be available with licenses (if applicable) in the Software Defined Storage layer for use without additional cost.	
1.10	Data Protection & Firewall	Ability to provide Replication of Virtual machine backup locally and in Disaster Recovery site. (VM level Mirroring) to protect selected VM's. If licensing module is there, bidder should provide licensing details. Should come with solution and should implement from Day 1 of operation.	
		The Solution should be able to take App and database consistent snapshot and should be able to schedule the same.	
		Shall be able to restore VM from the backup.	
		The Solution should have enterprise level micro segmentation firewall feature	
1.11	Firmware Code and Patch Management	The solution should provide seamless upgrade for (but not limited to) Firmware, Hypervisor, Storage OS, SOS software, BIOS and other such functions which are required in the solution.	
		Should have the ability to apply all Hardware and firmware patches without any downtime to production	
		Single validated and tested Patch level must be available at all time for hardware and software components in the cluster.	
		All patches for the complete hardware and software solution must come from a single validated source.	
1.12	Proactive Maintenance	Proposed solution should come with a single proactive incident reporting and alerting which covers both Hardware components and full software stack.	
		Proposed solution should have single dashboard for all the components including hardware, firmware and software.	
2. Compute			

2.1	Processor	Min. 2-socket; Intel Xeon Gold 6348 processors; 2.6G, 28/56T, 11.2GT/s, 42MCache, Turbo, HT (235W) DDR4-3200.	
2.2	Memory	Min. 1TB per Node as per scope	
2.3	Network I/O	Min. 4x 2-port 25G SFP28 adapter with optic cable connectivity to the Distribution Switch and ToR switch. Must provide all necessary transceivers for the ports	
2.4	ESXi Booting	Min. 2x 240GB SSD(Hardware Mirrored) with dedicated hardware RAID Controller	
2.5	Other Features	The computing pool should be scalable for future growth, the growth must be considered for upcoming 5 years from the installation date.	
		Enterprise remote management software; Bezel Kit; Cable Management Arm; TPM 2.0	
3. Software Defined Storage			
3.1	Encryption	Storage encryption shall be available from day1.	
3.2	Storage Architecture	All-Flash storage. Bidder shall provide the storage architecture details & should meet the IOPS requirement as per scope	
3.3	Storage Pool	SSD Drives: Should be hot swappable and field replaceable. 200TB for DC & 150TB for DR is usable without data reduction (deduplication & compression) features enables. No other features like thin provisioning, snapshot shall not be considered. **Deduplication and compression shall be inline and variable block. **	
3.4	Performance	Please mention performance metrics for proposed solution including space & other resources utilization. If available, bidder has to mention sizing document on proposed solution IOPS must be minimum 200k for DC & 150k for DR keeping the data reduction features enabled; 60:40 Read: Write ratio; 8k IO Block	
3.5	Other Features	99.9999% availability; All-inclusive license; QoS; Replication; Snapshot.	
3.6	Warranty	Refer to section number 5	
4. Top of the Rack Switch (ToR Switch)			
4.1	Brand	Must be in the Gartner Magic Quadrant of wired and wireless network	
4.2	Model	To be mentioned by the bidder	
4.3	Quantity	Total 4 (Four); 2 (Two) in DC and 2 (Two) in DR	
4.4	Architecture	Each switch shall be provided with- <ul style="list-style-type: none"> • Min. 48x 25G/40G ports and 4x 40/100G QSFP+/QSFP28 Ports with 1x 100G QSFP28 to QSFP28 Direct Attached Cable. • 48 x SFP28 Transceivers for node connectivity • 2 x 40G QSFP+ Transceivers for uplink switch connectivity • 1x 100G, QSFP28 Direct Attached Cable for inter-switch connectivity, min 1 meter • Shall be provided with rack mounting kit. 	
4.5	Optics cable	DC: Shall be provided with the min. 48x 3-meter & 48x 15-meter active optical OM4 cable. (Original OEM Factory made sustainable cable) DR: Shall be provided with the min. 32x 3-meter & 32x 15-meter active optical OM4 cable. (Original OEM Factory made sustainable cable)	
4.6	Other features	<ul style="list-style-type: none"> • TOR Switch must have Layer 3 routing feature • Quality of Service (QoS) with extended VLAN support • Support jumbo frame, link aggregation & FHRP • Dual redundant (1+1) and hot-pluggable power supplies; fully populated • Redundant (N+1) and hot-pluggable fan modules; fully populated. 	

4.7	Warranty	Refer to section number 5	
5. Distribution Switch			
5.1	Brand	Must be in the Gartner Magic Quadrant of wired and wireless network	
5.2	Model	To be mentioned by the bidder	
5.3	Quantity	Total 4 (Four); 2 (Two) in DC and 2 (Two) in DR	
5.4	Architecture	Each switch shall be provided with- <ul style="list-style-type: none"> Min. 48x 10G ports and 4x 40/100G QSFP+/QSFP28 Ports with 1x 100G QSFP28 to QSFP28 Direct Attached Cable. 48 x SFP28 transceivers for node connectivity 2 x 40G QSFP+ Transceivers for uplink switch connectivity 1x 100G, QSFP28 Direct Attached Cable for inter-switch connectivity, min 1 meter Shall be provided with rack mounting kit. 	
5.5	Optics cable	DC: Shall be provided with the min. 48x 3-meter & 48x 15-meter active optical OM4 cable (Original OEM Factory made sustainable cable) DR: Shall be provided with the min. 32x 3-meter & 32x 15-meter active optical OM4 cable (Original OEM Factory made sustainable cable)	
5.6	Other features	<ul style="list-style-type: none"> TOR Switch must have Layer 3 routing feature Quality of Service (QoS) with extended VLAN support Support jumbo frame, link aggregation & FHRP Dual redundant (1+1) and hot-pluggable power supplies; fully populated Redundant (N+1) and hot-pluggable fan modules; fully populated. 	
		All the required cables and modules for connecting all nodes to proposed switch in redundant architecture to be supplied from day one.	
5.7	Warranty	Refer to section number 5	
6. VMware License			
6.1	License Details	<ul style="list-style-type: none"> 2x VMware vCenter Server Standard (DC & DR) VMware vSphere Enterprise Plus. Number of Processor (as per the total node count) VMware NSX-T Data Centre Enterprise Plus. Number of Processor (As per the total node count) VMware Site Recovery Manager for 75 VMs SDS License VMware vSAN Enterprise Plus (vSAN ready nodes) number of Processor (as per the total node Count) 	
6.2	Warranty	Refer to section number 5	
6.3	License Type	VMWare software license should be OEM. Quantity of licenses to be mentioned by the bidder as per the scope	

09. TECHNICAL COMPLIANCE SHEET
For
LOT – B, Enterprise Backup Solution:

SL	Features	Descriptions	Bidder's Response
1	Country of Origin	To be mentioned by bidder	
2	Country of Manufacture	To be mentioned by bidder	
3	Brand Name & Version	To be mentioned by bidder	
4	Quantity & Capacity	Backup Software with min. 20 TB Front End Capacity License Or min. 300 number of instances combining of virtual, Physical	

		machines or and 2 x Appliance (DC & DR) Hardware with min. 140TB usable capacity each	
6	Platform Support/ Deployment	The data protection solution should be integrated with purpose build backup appliance (PBBA) with dedicated hardware, network, security, and storage. Solution should be plug & play and should be capable to scale out and up without any change of BOX.	
		The proposed PBBA hardware & software (Operating System and backup software) upgrade and patches shall be available till the asked warranty period	
		The data protection solution must have complete functional between software ISVs and Hardware appliance deployments.	
		The data protection solution must support the ability to restore to multiple parallel locations to enhance business recovery operations and operational flexibility	
		Backup Master server/media server/Repository should be capable of running on Linux/Windows.	
7	Appliance Hardware	The proposed PBBA solution should have following hardware configuration. i) Minimum 4 x 1 Gigabit Ethernet ports ii) Minimum 4 x 10/25 GbE/ SFP+ iii) Minimum 4 x 16GB FC iv) Minimum 128 GB RAM or more v) 140TB usable space/capacity (post-RAID capacity ignoring dedupe factor) vi) Minimum 12 core CPU processor or better with compatible intel chipset	
		The proposed PBBA should have Operating System disk in mirroring and data disk on RAID 6 with Hot spare, to ensure data should not loss at any condition.	
		Proposed PBBA must have expandable option up to 200TB usable space (post-RAID capacity ignoring dedupe factor)	
8	Software License	The backup software licenses should be perpetual in nature with min. 15 TB Front End License Or 300 VM.	
		The Software licensing should be independent of hardware	
		Proposed software should have all-inclusive licensing model – one license, all features	
		The system shall enable software upgrades without new licensing needing to be issued.	
9	Analyst Report/ Gartners Position	The proposed backup software must be present as Leaders in Gartner's Magic Quadrant for backup software report consistently last couple of years.	
10	Admin Dashboard	Administrator dashboard must display a graphical visualization of the environment. The dashboard must have the features for administration, configuration, monitoring and reporting of all tasks.	
11	Virtual Systems /Workload Support	The data protection solution must support VMware, Microsoft Hyper-V, Nutanix, RedHat Virtualization and OpenStack virtualization for Virtual Machines support. Should also support AIX, Solaris, and NAS backup.	
		The data protection solution must support container workloads for backup of data used by containers	
		The data protection solution must not depend on any third-party user interface and/or product, bundled or not, for granular recovery	
		The data protection solution must not depend on any third-party tool/product, bundled or/not, for Bare metal recovery (BMR)	
		The data protection solution must provide Docker/ Kubernetes certified client container workload support	
		Ability to test backups and verify backups can be recovered without restoring to production.	
		The data protection solution must be a vSAN certified	

		Backup software should be a Hardware Agnostic software and It should be able to backup data to tapes (like LTO) as well for long term retention. And also provide Fiber channel tape out support	
		Should allow for a failed backup or recovery job to be resumed from the point of failure rather than restarting the job all over again.	
12	Operational Simplicity	The data protection solution must support multiple vendor array subsystems for snapshot integration.	
		The data protection solution must not require additional licenses and/or fees to enable the use of cloud tiering or replication	
		The data protection solution shall support with DR orchestration tool which can automate the recovery of Virtual Machines between DC and DR site if required	
		The data protection solution should support for ever incremental backup & there should not be a need to do a full back up again	
		The data protection solution should support multiple service level based on data type and should have ability to prioritize backup/restore based on the data classification	
		The data protection solution must be able to set job priority for replication of data for DR purposes	
		Should have support for Development kits / API/ Rest API for customization of scripts and integration with EMS and the cloud infrastructure stack	
		Should leverage provisioning of Business Copy/Cloning/Snapshot/vaulting/synthesize backups, etc. by various storage vendors for zero downtime backup	
		Should support integration with leading cloud infrastructure platforms – like Open Stack or Cloud stack	
13	Database support	The proposed backup solution must include Agent/Modules for online backup of files, applications, and databases such as MS SQL, Oracle, DB2, Sybase, MySQL, Exchange, SharePoint and distributed databases/filesystems like NoSQL, MongoDB, Big data and Hadoop	
		The proposed solution must support "Always On" Configurations to provide a single entry point to perform backup and restore in MS-SQL	
		Your solution must support instant access for SQL database.	
		Should support integration with native utilities like Oracle RMAN, MSSQL backup) with and without source-side deduplication.	
14	Applications and DB Integration	Should support application consistent backups of all major DBs and Apps. Should also provide; <ul style="list-style-type: none"> • Integration with Oracle/RMAN including support for backup's rollover from FRA is highly desired. • Block level backups of Hyper-V with consistency 	
15	Exchange Recovery	The solution must be able to backup and recovery of latest Exchange Database.	
		The proposed software should have ability to perform single file level recovery at the click of a button without having to rely on 3rd party tools or vendors.	
16	Security	The backup solution shall come with immutable backup appliance that will protect any malicious attack.	
		Proposed software must have Ransomware resiliency built-in to protect backed up data from ransomware attack.	
		The data protection solution must have role based access control for users to perform specific actions.	
		The data protection solution must be able to integrate with active directory for assigning permissions for administration.	

		The data protection solution must maintain an audit trail to track the operations of the users and the changes that they have made.	
		Should support strong encryption (end to end) of data-at-rest/in replication and in flight. Required license should be included. Solution must meet compliance standards for data, Solution must support secure-multi-tenancy. Should also support locking the data from deletion and forging to make it immutable.	
17	Scale/ Performance	The data protection solution must support at least 50 VMs for simultaneous instance access and recovery	
18	Protocols	Should support multiple backup protocols (VTL, NFS, CIFS, NDMP and any other recommended proprietary protocol) simultaneously. All protocol licenses must be included.	
19	Throughput	Can handle not less than 25TB/hr throughput using the proposed protocol(s)	
20	Protection and Fault Tolerance	Must have robust FT and self-healing mechanism. E.g. RAID with hot spare, end-to-end verification without performance degradation, System should be able to survive double disk failure.	
21	Cleanup/Housekeeping	System should have seamless self-maintenance and housekeeping mechanism (e.g. cleanup, garbage collection) without affecting routine backup/recovery and replication operations.	
22	Data Reduction	The data protection solution must support intelligent, fixed and variable deduplication & compression technology	
		Backup Software may provide Source (Client & Media Server) & Target base data Deduplication capabilities (if required according to solution architecture). It should provide Global deduplication across backup jobs and different workloads.	
		The data protection solution must offer at least 50:1 deduplication ratio without the use of 3rd party arrays/tools.	
		Any required deduplication license(s) must be included for target and source-side deduplication.	
23	Replication	Network optimized replication with capability of bandwidth throttling. Solution must support 1:1, many: 1, 1: many, and cascaded replication. Required replication license(s) should be included for entire capacity. Solution should support immediate replication of backups to maximize DR readiness and minimize lag between production and DR.	
24	Reporting	Comprehensive reporting of media, backup server, jobs/tasks analytics & details dashboard view should be offered in the supplied solution. Backup software should have capability to do trend analysis for capacity planning of backup environment,	
25	Deployment & Migration	OEM/Vendor must take responsibility of all the associate deployment, data migration from existing backup system and make the system production ready, detailed SOW must be provided with the offer.	
26	Software Licenses	<ul style="list-style-type: none"> • Advanced analytics feature to predict drive health as well as cartridges health and life. • Data Verification Software proactively validates and scans, non-disruptively, the quality of data stored on LTO tape cartridges, that ensures a successful restore is possible when critical business data is needed. 	
27	Warranty	Refer to section number 5	

Tape drive specifications:

Information Technology Division

SL	Features	Descriptions	Bidder's Response
1	Brand	To be mentioned by the bidder	
2	Model	To be mentioned by the bidder	
3	Feature	The Offered Rack Mountable Tape Library must be with Minimum of 3 LTO-9 FC tape drive. The required Rackmount Kits & Accessories must be Supplied	
4	No. of Data Slots	The Offered Tape Library must be with Minimum 32 Slots	
5	Tape Drive Architecture	The Tape Library must be Offered LTO-9 drive in the Library shall conform to the continuous and data rate matching technique for higher reliability. Should support Linear Tape File System (LTFS) to provide easy data access and management allowing easy file share	
6	Transfer Rate and Backup Rate	Offered LTO-9 drive shall support 300MB/sec in Native transfer rate per drive	
7	Power Supply	The offered Tape Library must be offered with Redundant Power supply.	
8	Compatibility	The Tape Library Must be compatible with earlier version of LTO like LTO-7, LTO-8 etc.	
9	Connectivity	The Offered Tape Library shall provide 8Gbps native FC connectivity to SAN switches.	
10	Partitioning	Offered Tape Library must have partitioning support so that each drive can be configured in a separate partition. The Partitioning License should be provided along with the Library.	
11	Cartridges	Bidder must Supply (30 Blank- New Data cartridges & 5 Cleaning Cartridges) with barcode labels.	
12	Management	Tape Library shall provide web based remote management.	
13	Encryption	The offered tape library solution must support encryption and the encrypted keys should be managed by the ISV or the Tape library as a part of solution i.e., the Data on the LTO media must be in Encrypted form, The Encryption management should be either AME or LME, to keep the keys safe and secured.	
14	Barcode Reader and Male slots	Tape library shall support Barcode reader and min 3 male slots to deliver easy, secure access to individual tape cartridges without interrupting library operations.	
15	Operational Simplicity	Full-fledged Media Library Management, including complete and automated offsite tape management, creation of pickup and drop lists, tracking of tapes, etc.	
16	Software licenses	<ul style="list-style-type: none"> Advanced analytics feature to predict drive health as well as cartridges health and life. Data Verification Software proactively validates and scans, non-disruptively, the quality of data stored on LTO tape cartridges, that ensures a successful restore is possible when critical business data is needed. 	
17	Other Features	<ul style="list-style-type: none"> Valid FCC certificate to be submitted along with the bid The Tape library must set alerts for backup and archive events. Should have Operator Control Panel to check system status, run diagnostics, view system logs, check and set configuration, verify drive operations, run an inventory and manage the system. 	
18	Warranty	Refer to section number 5	

10. Financial Offer format

LOT – A, HCI Server Solution

Sl.	Item/Part Number	Qty.	Unit Price in BDT (Including Tax and all other cost)	Applicable VAT rate (...%) and VAT amount on unit price in BDT	Total Price in BDT (with 3 years warranty) (inclusive of VAT)	AMC/Renewal/warranty Price for 4th year (Inclusive of VAT)	AMC/Renewal/warranty Price for 5th year (Inclusive of VAT)	Remarks
1								
2								

LOT – A, VMware Solution

Sl.	Item/Part Number	Qty.	Unit Price in BDT (Including Tax and all other cost)	Applicable VAT rate (...%) and VAT amount on unit price in BDT	Total Price in BDT (with 3 years warranty) (inclusive of VAT)	AMC/Renewal/warranty Price for 4th year (Inclusive of VAT)	AMC/Renewal/warranty Price for 5th year (Inclusive of VAT)	Remarks
1								
2								

LOT – B, Enterprise Backup Solution:

Sl.	Item/Part Number	Qty.	Unit Price in BDT (Including Tax and all other cost)	Applicable VAT rate (...%) and VAT amount on unit price in BDT	Total Price in BDT (with 3 years warranty) (inclusive of VAT)	AMC/Renewal/warranty Price for 4th year (Inclusive of VAT)	AMC/Renewal/warranty Price for 5th year (Inclusive of VAT)	Remarks
1								
2								

THE END