



香港防癆心臟及胸病協會
Hong Kong Tuberculosis, Chest
and Heart Diseases Association

**Tender for
Application Server**

For

Hong Kong Tuberculosis, Chest
and Heart Diseases Association

**Form of Tender
for Application Server**

Name : Hong Kong Tuberculosis, Chest and Heart Diseases Association
(Association)

Address : 2/F, Leo Lee Building, 266 Queen's Road East, Wan Chai, Hong Kong

Tender No. : TBAAS2024/001

Tender Closing Date and Time : 3:00p.m., 7 February 2025

Offer to be Bound

1. I/We, the undersigned/the legal entity, hereby agree to supply all or any portion of the items and services specified in the Tender Requirements provided by the Association. We acknowledge that:
 - (a) Pricing: The prices quoted in the Tender shall apply to all orders placed during the Contract Period.
 - (b) Terms and Conditions: Our supply will be subject to the Terms and Conditions set forth in the Invitation to Tender, the General Conditions of Contract, and any applicable Special Conditions of Contract.
 - (c) Counter-Proposals: Any deviations from these conditions will be outlined in our Tender Proposal and will be subject to negotiations, if applicable.
2. I/We, hereby warrant that the sale and/or supply of the items or services or any of them by me/us will not infringe any patent.
3. This tender is submitted with the authority and on behalf of (insert name of Company)

whose registered office is situated at

4. The number of my/our Company's Business Registration Certificate is _____ which is still valid until _____
5. My/our answer to Clause 8.7. Conflict of Interest, of Terms and Conditions of the Invitation to Tender is _____ (Please indicate YES or NONE, if YES, please give details below.)
Name _____ Identity Card No. _____ Relationship _____
6. Name and designation of the person signing:
Name in Block Letter: _____
Designation: _____

Authorised Signature:	Company Chop
Date : _____	
Tender Ref. : TBAAS2024/001	
Tel No. : _____	
Fax No. : _____	

1. Overview

1.1. The existing Application Server that hosts the accounting system has been in use since 2015. With foreseeable discontinuation of maintenance service in near future, the Association intends to replace the dated Application Server.

1.2. Interested suppliers are invited to submit proposals for provision, installation and subsequent maintenance of the Application Server, with: -

- (a) Freni Care and Attention Home, 1H, Shiu Fai Terrace, Wan Chai, Hong Kong as the “Production Site”; and
- (b) Headquarters of the Association, Leo Lee Building, 266 Queen’s Road East, Wan Chai as the “Disaster Recovery Site”.

2. Server Solution

Tenderers shall deliver the following: (i) provision of hardware & software required; (ii) setup of hardware and software; (iii) user training; and (iv) three years of maintenance service and software subscription. Please refer to the Attachment(s) for the description of the requirements of the Application Server and other relevant details.

3. Risk Management

The Application Server shall be regarded as a critical component for the operation of the Association. Tenderers must consider risk management seriously to make adequate and justifiable proposals in this connection. Tenderers’ proposals must at least cover the following areas: -

3.1. Data Backup

- Full on-site and real-time backup is mandatory.
- The approach, including the media, tool, frequency, retention period, etc., is to be proposed.

3.2. Resilience

- A replicated server for mirroring located at the Production Site is mandatory. When the production server in use is out of order, all transactions will switch over to the replicated server.
- A stand-by server for mirroring located at the Disaster Recovery Site is mandatory. Data on the production server must be replicated to the data storage device of the stand-by server at least every 24 hours.
- In any unfortunate events of any failure in the servers at the Production Site, all transactions will switch over to the stand-by server.
- All transactions will switch over to the production server as soon as it resumes normal operation, thus timely synchronisation of databases and files is required.

- Please note that the approach, required equipment and configuration are to be proposed.
- The Application Server, in its entirety, must not allow any single points of failure to stop it from normal operation.

3.3. Security

- VPN network will be set up in another IT infrastructure enhancement project of the Association to help protect the all the IT assets, including the Application Server, from unexpected intrusion and information leakage.
- Besides VPN, Tenderers are to propose other effective means, possibly including data encryption, user authentication, etc., to protect against unauthorised access to the Server Solution and the stored information.
- Tenderers are to propose an effective and appropriate anti-virus protection mechanism.

3.4. Contingency

- Tenderers must design alternative (manual) operation procedures so that in any unfortunate events of any failure in the Application Server, the Association can adopt the alternative procedures to continue its business.
- Tenderers must also detail the approach for recovering any components of the Application Server in case of failure. The expected maximum downtime must be specified.
- Clearly documented procedures, guidelines and training must be included as part of the project deliverables.
- The Association may request the Tenderers to demonstrate that their proposed approach works as expected by performing a recovery drill.

3.5. Personal Data Handling

- The Association considers the protection of personal data to be one of the most important management issues. Tenderers must demonstrate how their proposed solutions have adequately taken care of the relevant requirements in this connection, with reference to the Personal Data (Privacy) Ordinance of the Hong Kong Special Administrative Region.

The objectives of all the measures requested in this Section are to ensure business continuity and at the same time, to prevent unauthorised access to privileged information. Tenderers are to propose justifiable, cost-effective approaches that prevent system mal-functioning and minimise business disruption in case the Application Server does fail. Control of access to information maintained in the Application Server should not be compromised. Only authorised personnel will be allowed to access the information they are granted the privileges.

Tenderers are to design the relevant procedures, provide the documentation describing the approaches, train the staff of the Association and most important of all, ensure that their proposed approaches can actually achieve the purpose.

4. VPN Service

To strengthen system security, the Association will implement VPN for all the IT assets including the Application Server. Tenderers should design their proposed Solution with due consideration to this.

Tenderers must also spell out explicitly the requirements on the VPN, so that their proposed Solution would be able to operate smoothly as expected.

5. User Training and Documentation

Adequate user training sessions should be provided to all relevant users in the Association to help them master the required skills in using the proposed Solution.

Tenderers must provide relevant manuals specific to the context of the Association for the training. The documents should include at least the (a) User Manual, and (b) System Administration Manual.

These documents should be updated whenever the details have been modified due to changes to any components of the Application Server or the associated operation procedures.

6. Server Hardware Maintenance and Software Support

Tenderers are to make proposals regarding long-term server hardware maintenance and software support. Although such services may be handled by a third party instead of the Tenderers, the offers will be marked and counted during the evaluation of this Tender. The Association reserves the right to subscribe to the service in this connection with the terms and conditions as described by the Tenderers after the implementation project finishes.

Specific items should at least include the followings: -

- (a) Access to the helpdesk during office hours for general enquiries and assistance. Response time of calls should be specified. Always-on support within 2 to 4 hours via Calls/Whatsapp/Email is desirable.
- (b) On-site Support during office hours in the office of the Association.
- (c) Remote Support during office hours through e-mail and remote support tools.
- (d) Free Function Upgrade.
- (e) Bug-fixing.
- (f) Free version upgrade and installation of bug-fixing patches, and the corresponding documentation.
- (g) Refreshment courses on how to use the Systems.

(h) Offers regarding out-of-scope services.

7. Factory Warranty

Tenderers must offer warranty according to the requirements as set out in the Attachment.

8. Terms and Conditions

8.1. Preparation of Tender

The Tender requirements issued with this Invitation to Tender must not be altered by the Tenderers for any reason.

Tenders are to be completed by the Tenderers in ink or typescript.

Tenders may not be considered if any particulars and data asked for in the Tender Requirements, or in the follow-up clarification of the details described in the Tenders, are not furnished in full, rendering it impossible for evaluating the submitted responses.

The Association may not consider any received proposals if any of the above is not met satisfactorily and the Association is not obliged to explain to the concerned Tenderer of such decision.

8.2. Validity

Tenders shall remain open for acceptance by the Association for a period of not less than 90 days after the Tender Closing Date.

8.3. Outsourcing

Outsourcing of system development work and maintenance services should be reported to the Association.

In any case, the Tenderer remains solely responsible for the delivery of the awarded Contracts.

8.4. Reference Site Visit

Tenderers should provide information of reference projects in its Proposals, and arrange site visits within a reasonable timeframe and free-of-charge, if requested by the Association.

8.5. Interview

Tenderers must attend the interviews requested by the Association in the tendering process, demonstration and/or presentation of its proposal may be required at the expenses of the Tenderers.

8.6. Consideration of Offers

The Association reserves the right to accept all or any part of any Tender at any time within the period during which the Tenders remain open.

The Association is not bound to accept the lowest bid and it reserves the right not to award a contract at all if no suitable Tender has been received.

An evaluation process will be conducted with the objective to assess the proposals in their overall value/impact to the Association, total costs of implementing the Solution and subsequently using the Solution, the quality of the Solution and the practicality in successfully implementing the Solution, etc.

Proposals will be evaluated by the Association with the following criteria: -

- (a) Fulfilment of Requirements
- (b) Solution Design and Features
- (c) Technology Applied and Expansion Flexibility
- (d) Implementation and Delivery Schedule
- (e) Development and Implementation Costs
- (f) Recurrent Maintenance and Management Costs
- (g) On-going Service Terms
- (h) Reference and Past Experience, Company Profile
- (i) Value-added Features

8.7. Conflict of Interest

The Tenderers should state in the "Offer to be Bound" Section if any member of the Association has any financial or other interests in the Tenderers' companies either directly or indirectly through members of his immediate family.

8.8. Registration of Tenderer

The Association will not enter into a contractual relationship with a Tenderer unless the Tenderer, at the time of submitting the Tender, is a company registered in Hong Kong under the Companies Ordinance or a business registered under the Business Registration Ordinance or a company registered under the law of the Tenderer's country.

8.9. Cancellation of Tender

Without prejudice to the Association's right to cancel the Tender, where there are changes of requirements after the Tender Closing Date for operational or whatever reasons, the Association is not bound to accept any conforming Tender and it reserves the right to cancel the Tender.

8.10. Acceptance of Tender

The successful Tenderer will receive a fax or letter of acceptance, duly signed by an authorised representative of the Association, as the official notification. The fax or letter of acceptance shall constitute a binding contract with reference to the Tender Requirements and Tenderer's proposal.

8.11. Payment

All prices shall be quoted in Hong Kong Dollars and the Association will settle payments with the successful Tenderer in Hong Kong Dollars.

8.12. Bankruptcy

The Association may at any time by notice in writing terminate the Contract without entitling the successful Tenderer to any compensation in any of the following events:

1. If the Tenderer shall at any time be adjudged bankrupt, or shall have a receiving order or order for administration of its estate made against it, or make any conveyance or assignment of its effects or composition or arrangement for the benefit of its creditors or purports so to do; or
2. If the Tenderer, being a company shall pass a resolution or the court shall make an order for the liquidation of its assets or a receiver or manager shall be appointed on behalf of the debenture holders, or circumstances shall have arisen which entitle the court or debenture holders to appoint a receiver or manager.

Provided always that such determination shall not prejudice or affect any right or action or remedy which shall have accrued or shall accrue thereafter to the Association.

8.13. Penalty Clause

If for any reason the Project experiences slippage of more than two (2) calendar months against the project plan to be agreed and confirmed at the initial stage of the Project and upon the Association's request to the Tenderer for immediate remedial planning and actions, the Tenderer fails to produce a reasonable and practical plan, the Association would be entitled to terminate the Contracts with immediate effect. Upon such termination, the Association reserves the right to recover from the Tenderer the amount of all damages and loss suffered by the Association resulting from such termination. The Tenderer should also refund to the Association all money

previously paid to the Association under this Contract.

8.14. Tender Rigging

No tender rigging is allowed. The Association reserves the right for not considering the Tenderer or terminate the Contract (without any compensation to the Tenderer) if such activities are identified at any time.

8.15. Intellectual Property Rights

The Association will own the data and the accounts created under the name of us. One copy of the source codes should be given to the Association with unlimited usage but for the Association's internal use only.

The Tenderer hereby warrants that the items or services supplied under this Contract and the process for its manufacture or development do not infringe the Intellectual Property Rights of any third party.

The Tenderer hereby undertakes to inform the Association immediately if any claim for infringement or alleged infringement of Intellectual Property Rights is lodged against it during the currency of this Contract in respect of the items or services supplied under this Contract.

The Tenderer shall indemnify the Association and keep the Association fully and effectively indemnified against all claims, actions, proceedings, liabilities, losses, damages, demands, charges, costs and expenses of whatsoever nature arising from or incurred by reason of infringement or alleged infringement of any Intellectual Property Rights in connection with the use or possession of the items or services or any part thereof by the Association.

8.16. Arbitration and Governing Law

All disputes, differences or questions arise between the Association and the successful Tenderer as to the performance of the Contract or as to any matter arising out of the Contract or in any way connected therewith shall be subject to and construed in accordance with the laws of Hong Kong and subject to the jurisdiction of the courts of Hong Kong.

8.17. Confidentiality

Both parties (i.e. the Tenderer and the Association) and their respective staff, agents, subcontractors will keep in confidence and not disclose to any third party any information, related affairs or businesses arising out of or in connection with this Project other than disclosure to those persons to whom it is necessary to supply such information for the proper performance of their obligations in this Project. The relevant party shall impose the same obligations of confidentiality on its staff, agents, subcontractors and ensure they comply with such obligations.

Both parties (i.e. the Tenderer and the Association) will establish and maintain relevant security measures and procedures as are practical and adequate to provide for the safe custody of the information within the scope of this Clause 8.17 in their possession and to prevent unauthorised access/transfer thereto or use thereof.

In anticipation of any potential cases of conflict of interest, the Tenderer shall provide a brief account to the Association of the situation immediately. The Tenderer and the Association shall then agree a mutually acceptable approach for handling the situation.

If either party suspects or finds that the security or confidentiality of the information within the scope of this Agreement is or will be compromised or breached, the party shall immediately notify the other party and take all reasonable steps to rectify the situation, to ensure and protect such security or confidentiality.

These obligations of confidentiality shall survive without any limitation of time.

Nothing contained above shall apply to prevent the Tenderer or the Association from disclosing any information:

1. previously in its possession and has the full right to disclose; or
2. which is or later becomes public knowledge other than by breach of this Agreement; or
3. which it may independently develop; or
4. received from a third party who has the full right to disclose; or
5. which it is compelled to disclose by applicable law, rules or regulations or directions of the Government or any supervisory authority exercising control over it.



8.18. Anti-collusion

The Tenderer shall not communicate to any person other than the Employer the amount of any tender, adjust the amount of any tender by arrangement with any other person, make any arrangement with any other person about whether or not he or that other person should or should not tender or otherwise collude with any other person in any manner whatsoever in the tendering process until the Tenderer is notified by the Employer of the outcome of the tender exercise. Any breach of or non-compliance with this sub-clause by the Tenderer shall, without affecting the Tenderer's liability for such breach or non-compliance, invalidate his tender.

The above sub-clause of this Clause shall have no application to the Tenderer's communications in strict confidence with his own insurers or brokers to obtain an insurance quotation for computation of tender price and communications in strict confidence with his consultants or sub-contractors to solicit their assistance in preparation of tender submission.

9. Schedules

Tenderers are to supply all the required information, in particular Quotation Breakdown, in the Attachment(s) as requested if their tenders are to be considered.

Authorised Signature:	Company Chop
Date :  - 6 JAN 2025	
Tender Ref. : TBAAS2024/001	
Tel No. : 2572 3466	
Fax No. : 2834 9333	

Qualification Requirement
Application Server for
Association

Part A (for the completion of Technical Proposal)

Name of Tenderer: _____

1. General Rules and Observations

Unless otherwise stated, each item offered shall incorporate the following components / requirements / features. The specification only outlines the minimum requirements for the product. Suppliers / Tenderers must indicate below, point by point, whether their offered product complies fully with the tender specification.

2. Solution Overview

The Solution will mirror the structure of the existing Application Server, which possesses the practices of high availability and disaster recovery. With necessary upgrades to meet the current standards and relevant regulations, the infrastructure of the Solution is expected to incorporate the following components: -

Production Site

1. Two identical servers
2. One shared data storage device
3. One data backup device
4. Two identical network switches
5. Operating system and other relevant software (e.g. virtualisation, backup)

Disaster Recovery Site

- 1 One stand-by server (identical to the servers at the Production Site)
- 2 One data storage device (identical to the device at the Production Site)
- 3 One network switch
- 4 Operating system and other relevant software (e.g. virtualisation, backup)

Detailed functional requirement and infrastructure specification are described below.

3. Functional Requirement

The Solution proposed by the tenderer must comply with the following requirements: -

1. Automatic snapshot backup within the data storage device at the Production Site at a frequency of at least every 6 hours;
2. On-site backup to the data backup device at the Production Site at a frequency of at least every 24 hours; and
3. Data replication to the data storage device at the Disaster Recovery Site at a frequency of at least every 24 hours.
4. The Solution must support single file restore from snapshot without restoring the whole volume
5. Servers at the Production Site must be capable of high availability.
6. Network switches at the Production Site must be capable of high availability.

4. Capacity

1. Number of service units: 8
2. Name and location of service units:
 - The Association
266 Queen's Road East, Wan Chai, Hong Kong (**Disaster Recovery Site**);
 - Freni Care and Attention Home
1H Shiu Fai Terrace, Wan Chai, Hong Kong (**Production Site**);
 - The Hong Kong Tuberculosis Association--The University of Hong Kong
Chinese Medicine Clinic cum Training and Research Centre (Wan Chai District)
2/F., Tang Shiu Kin Hospital Community Ambulatory Care Centre,
282 Queen's Road East, Wan Chai, Hong Kong;
 - The Hong Kong Tuberculosis Association--The University of Hong Kong
Chinese Medicine Clinic cum Training and Research Centre (Southern District)
2/F., 10 Aberdeen Reservoir Road, Aberdeen, Hong Kong;
 - Hong Kong Tuberculosis Association Edwin Leung Chinese Medicine Clinic
18/F, 83 Wan Chai Road, Wan Chai, Hong Kong;
 - Hong Kong Tuberculosis Association Steve Y.F. Lan Chinese Medicine Clinic
Room 1 & 2, 18/F, 383 King's Road, North Point, Hong Kong;
 - The Hong Kong Tuberculosis Association Rusy M. Shroff Oral Health Services Limited
5/F., Tang Shiu Kin Hospital Community Ambulatory Care Centre,
282 Queen's Road East, Wan Chai, Hong Kong; and
 - Peggy Lam Health Promotion and Education Centre
266 Queen's Road East, Wan Chai, Hong Kong

3. Number of sites / physical locations: 7

4. Number of Employees: ~220-250

5. Infrastructure Specification

The infrastructure may include the following major components: -

1. Hardware (as stated in Section 2)
2. Operating system and other relevant software
3. Backup solution
4. Antivirus solution
5. Implementation service
6. Maintenance service

Production Site

	Item	Quantity
1.	Server hardware (for production and replicated servers) <ul style="list-style-type: none"> • 1U form factor and rack-mountable • CPU: Intel Xeon-Silver 4310 (2.1GHz/12-core) processor or above • RAM: 128GB memory or above (Registered Smart Memory Kit) • Hard drive: 2 units of 480GB or 500GB or 512 GB NVME SSD • Support RAID 0, 1, 5, 6, 10, 50, 60 with SAS/SATA/NVME • Support PCIe Gen4 x8 host / Gen4 NVMe / Gen 3 SAS/SATA • 4-port 1Gb Base-T network adapter for Ethernet network connectivity • 2-port 10Gb Base-T network adapter for Ethernet network connectivity • Smart Array Controller • Management port with tool, such as iLO advance • Certified for VMware, ESX, Microsoft Windows 2022 Server, Microsoft Hyper-V • 2 hot plug power supply modules/units of at least 800W • Rail kit • Redundant cooling fans • 3 years of 7x24 factory warranty with 4-hour on-site support 	2
2.	Operation system and other relevant software (for servers)	
	• Microsoft Windows Server 2022 16-core Standard Reseller Option Kit	2
	• Windows Server User CAL	20
	• VMware vSphere Standard 8 (per core) 3-year subscription	24
	• Anti-virus software, e.g. Check Point, 3-year subscription	2

3.	<p>Data storage device</p> <ul style="list-style-type: none"> • 2U form factor and rack-mountable • CPU: 2 x 1.5GHz 12-core processor • RAM: minimum 64GB memory with separate 8GB NVRAM modules • Hard drive: minimum 8 units of 960GB / 1TB NVME SSD • Maximum effective capacity of 26PB • Support RAID, such as RAID 0, RAID 1, RAID 5, RAID 6, RAID-TEC • 4-port 10Gb Base-T network adapter for Ethernet network connectivity • Provide active-active dual controller • Support and provide deduplication, compression, compaction, thin provisioning, and snapshot software to reduce the data size and optimise the storage capacity, such as ONTAP ONE • Support up to 2,000,000 snapshots per storage • Provide capability to create at least 1023 point-in-time copies • Provide WORM technology natively, without the need for additional software executables or additional hardware, to prevent log files from being edited or deleted • Non-system software must not be required for backups and recovery when using the system as secondary storage • Transfer only changed blocks of a file or Logical Unit Number (LUN) to backup if partially changed • Support single file restore from snapshot without restoring the whole LUN or volume • Allow users to instantaneously recover deleted files or folder hierarchies from snapshot copies without restoring the whole file service and without the assistance from system administrators • Provide real time synchronized to same device in same subnet • Support integration with container technology for dynamic volume provisioning through PaaS software • Provide native anti-ransomware protection feature to provide tamperproof snapshots protection for data recovery • Certified for VMware, ESX, Microsoft Windows 2022 Server, Microsoft Hyper-V • 3 years of 7x24 factory warranty with 4-hour on-site support 	1
4.	<p>Data backup device</p> <ul style="list-style-type: none"> • 2U form factor and rack-mountable • CPU: Intel Xeon-Silver 4314 (2.4GHz / 16-core) Processor or above • RAM: 32G Memory or above (Registered Smart Memory Kit) 	1

	<ul style="list-style-type: none"> • Boot drive: 2 units 480GB or 500GB or 512GB NVME SSD • Hard drive: 8 units 2TB SATA 6G 7.2K • Support RAID 0, 1, 5, 6, 10, 50, 60 with SAS/SATA/NVME • Support PCIe Gen4 x8 host / Gen4 NVMe / Gen 3 SAS/SATA • 4-port 1Gb Base-T network adapter for Ethernet network connectivity • 2-port 10Gb Base-T network adapter for Ethernet network connectivity • Smart Array Controller • Support remote console, e.g. iLO • Certified for VMware, ESX, Microsoft Windows 2022 Server, Microsoft Hyper-V • 2 hot plug power supply modules/units of at least 800W • Rail kit • Redundant cooling fans • 3 years of 7x24 factory warranty with 4-hour on-site support 	
5.	Backup software (for data backup device)	
	<ul style="list-style-type: none"> • Veeam Data Platform Foundation Universal 3-Year License (Includes Enterprise Plus Edition features. 10 instance pack. 24/7 support.) 	1
6.	Network switch	
	<ul style="list-style-type: none"> • 1U form factor and rack-mountable • 24x ports 10/100/1000Gb BASE-T ports • 4x 1Gb/10Gb SFP ports • 1x RJ-45 Console Port • 1x USB Type-A host port • Support for IEEE 802.3az Energy Efficient Ethernet • Switching Capacity: 128 Gbps • Forwarding Rate: Up to 95.2 Mpps • Maximum VLANs: 4096 • Maximum MAC Address Table Size: 32,000 • Support Spanning Tree Protocol (STP), and support standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) • Support port mirroring • Support static Address Resolution Protocol (ARP) to allow detection of duplicate IP addresses • Support proxy ARP to allow normal ARP operation between subnets or when subnets are separated by a Layer 2 network • Support Dynamic Host Configuration Protocol (DHCP) which simplifies the management of large IP networks and supports client 	2

	<ul style="list-style-type: none"> • Support DHCP Relay which enables DHCP operation across subnets • Support Routing Information Protocol version 2 (RIPv2), Open Shortest Path First (OSPF), and Protocol Independent Multicast (PIM) for multicast routing • Access control list (ACL) support for both IPv4 and IPv6 • Provide cloud-based management tool • 2 field-replaceable, hot-swappable power supply slots • 2 field-replaceable, hot-swappable fan tray slots • 3 years of 8x5 warranty with next business day on-site support 	
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Disaster Recovery Site

	Item	Quantity
1.	<p>Server hardware (for production and replicated servers)</p> <ul style="list-style-type: none"> • 1U form factor and rack-mountable • CPU: Intel Xeon-Silver 4310 (2.1GHz/12-core) processor or above • RAM: 128GB memory or above (Registered Smart Memory Kit) • Hard drive: 2 units of 480GB or 500GB or 512 GB NVME SSD • Support RAID 0, 1, 5, 6, 10, 50, 60 with SAS/SATA/NVME • Support PCIe Gen4 x8 host / Gen4 NVMe / Gen 3 SAS/SATA • 4-port 1Gb Base-T network adapter for Ethernet network connectivity • 2-port 10Gb Base-T network adapter for Ethernet network connectivity • Smart Array Controller • Management port with tool, such as iLO advance • Certified for VMware, ESX, Microsoft Windows 2022 Server, Microsoft Hyper-V • 2 hot plug power supply modules/units of at least 800W • Rail kit • Redundant cooling fans • 3 years of 7x24 factory warranty with 4-hour on-site support 	1
2.	<p>Operation system and other relevant software (for server)</p> <ul style="list-style-type: none"> • VMware vSphere Standard 8 (per core) 3-year subscription 	12
3.	<p>Data storage device</p> <ul style="list-style-type: none"> • 2U form factor and rack-mountable • CPU: 2 x 1.5GHz 12-core processor • RAM: minimum 64GB memory with separate 8GB NVRAM modules • Hard drive: minimum 8 units of 960GB / 1TB NVME SSD • Maximum effective capacity of 26PB • Support RAID, such as RAID 0, RAID 1, RAID 5, RAID 6, RAID-TEC • 4-port 10Gb Base-T network adapter for Ethernet network connectivity 	1

	<ul style="list-style-type: none"> • Provide active-active dual controller • Support and provide deduplication, compression, compaction, thin provisioning, and snapshot software to reduce the data size and optimise the storage capacity, such as ONTAP ONE • Support up to 2,000,000 snapshots per storage • Provide capability to create at least 1023 point-in-time copies • Provide WORM technology natively, without the need for additional software executables or additional hardware, to prevent log files from being edited or deleted • Non-system software must not be required for backups and recovery when using the system as secondary storage • Transfer only changed blocks of a file or Logical Unit Number (LUN) to backup if partially changed • Support single file restore from snapshot without restoring the whole LUN or volume • Allow users to instantaneously recover deleted files or folder hierarchies from snapshot copies without restoring the whole file service and without the assistance from system administrators • Provide real time synchronized to same device in same subnet • Support integration with container technology for dynamic volume provisioning through PaaS software • Provide native anti-ransomware protection feature to provide tamperproof snapshots protection for data recovery • Certified for VMware, ESX, Microsoft Windows 2022 Server, Microsoft Hyper-V • 3 years of 7x24 factory warranty with 4-hour on-site support 	
4.	Network switch	
	<ul style="list-style-type: none"> • 8-port 10Gb unmanaged switch • 1 year of factory warranty 	1

Tenderers would need to make a fair assessment on such hardware and software configuration described to ensure that the existing accounting system of the Association and other relevant software products as required are compatible and with sufficient capacity. Besides, tenderers would also need to ensure that such hardware/software configuration supports proper data backup (even for hot backup) and security control.

Tenderers should counter-propose the hardware/software configuration required if they find that there is a deficiency in the above-stated hardware, software and infrastructure configuration.

6. Schedules

6.1. Compliance

(* Please tick the appropriate.)

We confirm that our proposal comply fully with the required specifications, described in Sections 1 to 5 of this Document.

We confirm that our proposal does not comply fully with the required specifications, described in Sections 1 to 5 of this document, in the following aspects:

6.2. Reporting

(* Please tick the appropriate.)

I/We confirm that our proposed solution is equipped with a reporting tool or a business intelligence tool.

I/We confirm that our proposed solution is NOT equipped with any reporting tool nor any business intelligence tool.

6.3. Risk Management

Please state your proposed approach for risk management including but not limited to the following aspects:

1. Transaction Data Backup:

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2. Solution Backup:

--

3. Resilience:

--

4. Security:

--

5. Contingency:

--

6. Personal Data Handling:

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7. Other risk factors:

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6.4. Documentation and Deliverables

Please state if the following documentation/deliverables will be provided: -

Documentation/ Deliverables	Comply (Yes/ No)
Project Initialisation Document	
Functional Specification	
Technical Specification	
User Acceptance Test Plan	
User Manual	
Application Operation Manual	
Disaster Recovery Plan & Procedures	
Disaster Recovery Drill	
User Training	
System Nursing	

Please state the documentation/deliverables other than those listed above: -

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6.5. Project Schedule

Please provide the project schedule by Month Number, e.g. Month 1 is the 1st month since the formal project commencement.

For all core functions, it should be completed within 12 months counting from the project start date.

	Major task/ milestone	From (Month/Year)	To (Month/Year)
1	Project Initialisation		
2	System Installation/Customisation/Development		
3	User Training		
4	User Acceptance Test		
5	System Live Run		
6	System Nursing		

6.6. System Support and Maintenance

Please describe the scope of services and service level for the system support and maintenance in the following aspects:

1. Helpdesk services:

(Service hours, response time of calls should be specified.)

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2. Bug-fixing:

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3. Free version upgrade and installation of bug-fixing patches, and the corresponding documentation:

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4. Refreshment courses on how to use the System:

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5. Offers regarding out-scope services:

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6. On-site & remote support services:

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6.7. Reference Projects

Please list your reference projects in the table below and provide supplementary details if relevant.

	System/ Project Name	Client	Supplementary
1.			
2.			
3.			
4.			
5.			

Part B (for the completion of Price Proposal)

1. Quotation Breakdown

1.1 Please provide breakdown for core hardware, software, implementation and initial maintenance.

	Item	Unit of Measure	Quantity	Unit Price	Total Price
1.	Production Site				
	1.1 Server				
	1.2 Data Storage Device				
	1.3 Data Backup Device				
	1.4 Network Switch				
2.	Disaster Recovery Site				
	2.1 Server				
	2.2 Data Storage Device				
	2.3 Network Switch				
3.	Implementation				
	3.1 Hardware Installation				
	3.2 Software Installation				
	3.3 Configuration				
	3.4 System Testing				
4.	Hardware Maintenance				
5.	Software (One-time Purchase)				
6.	Software (Subscription-based)				
	Total:				

1.2 Please provide the projected hardware maintenance and software subscription fee from the 4th year onwards:

	Item	Unit of Measure	Quantity	Unit Price	Total Price
1.	Annual Hardware Maintenance Fee				
2.	Annual Software Subscription Fee				

Please state a projection on the number of years of maintenance support you can offer beyond the initial 3-years warranty period:

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2. Payment Schedule

Milestone	Indication of Milestone Completion	Percentage of Project Sum
Initial Payment	Contract sign off	50
Project Completion	All project deliverables are received and endorsed	50

(* Please tick the appropriate.)

I/We confirm that our proposal comply fully with the payment schedule described above.

I/We confirm that our proposal does not comply fully with the Payment schedule described above in the following aspects:

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