

PART III

SPECIFICATIONS, REQUIREMENTS & EVALUATION CRITERIA

FAS/IT/2018/10/01

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GENERAL

- 1.1 This contract is for the supply, delivery, installation, data migration, testing and commissioning of IT infrastructure hardware and software for the Football Association of Singapore.
- 1.2 The Contractor shall comply with the Specifications and all provisions in these Tender Documents.
- 1.3 No alteration shall be made by the Contractor to the provisions in the Tender Documents, in particular to the Specifications, Requirements and the Schedule to Form of Tender. No alteration, addition is to be made by the tenderer and the text as originally prepared by the FAS shall be strictly adhered to.
- 1.4 It is the responsibility of the Contractor to check the Tender Documents, the site, equipment and materials to gather any information and data required towards the fulfillment of the Tender. The Contractor shall not make any claim against the FAS and shall hold the FAS completely harmless and shall indemnify and keep the FAS fully indemnified against any failure to check or gather information as aforesaid.
- 1.5 Neither the Contractor nor any member of his/her family nor any member of his/her staff may be an employee of the FAS. All salaries and wages payable to staff employed by the Contractor shall be the responsibility of the Contractor.
- 1.6 The FAS shall not be liable for loss or damage to the Contractor's property placed or left on site or elsewhere on FAS property.
- 1.7 The Contractor shall bill the FAS prices quoted in the Form of Tender and Schedule to Form of Tender. The rates quoted shall be deemed to include all the Contractor's costs, overheads and profits.

SPECIFICATIONS & REQUIREMENTS

The following are the specifications and requirements for the IT Infrastructure Technical Refresh for the Football Association of Singapore.

A. SPECIFICATIONS

1. The existing server infrastructure on Windows 2008 Enterprise and Standard Operating System (OS) to be upgraded to latest Microsoft windows server operating system.
2. For the scope of work as stated in point 3 below,
 - a. Dell Hardware to be proposed
 - b. Microsoft and all other applicable license costing to be quoted under Charity Pricing as FAS is registered under IPC Status.
3. Scope of Work:
 - a. Sizing to be done by the vendor to propose the hardware based on reasonable growth in number of users and transactions (about 20% growth per year) for the next 6 years.
 - b. Two (2) units of managed network switches to support High Availability (HA) based on the sizing.
 - c. Keyboard, Video and Mouse (KVM) Display control for proposed VMs and server.
 - d. Clean migration and upgrade of primary physical domain controller to the new infrastructure on latest server OS, including current setup of group policies, schema, etc.

- e. Clean Migration of files/folders to new server with appropriate shared rights, permission and access control assuming that the user IDs after migration of Domain Controller (DC) will remain the same.
- f. The application servers on Citrix Virtualization to be migrated and upgraded to the Microsoft Hyper V environment with High availability.
- g. This includes the migration and upgrade of business applications and all its relevant data to latest application version on new server infrastructure with appropriate access controls.
- h. For the minimum requirement for the business application refer Appendix 1,2 and 3. The applications include
 - i. Sage 300 ERP 2014 with Microsoft SQL Server
 - ii. Sage EasyPay Enterprise
 - iii. Zoho ManageEngine Asset Explorer and Patch Manager Plus
 - iv. Info-Tech Eleave System
 - v. Storage files with appropriate permission.
- i. Managed view of IT hardware (both existing and new) like switches, servers, storage through preferably a single user interface.
- j. Installation and configuration of asset tracking and patch manager software agent on the new server infrastructure as stated in point g. above.
- k. Installation and configuration of Acronis backup application and backup hardware on all new proposed servers assuming the license of 'Acronis Backup Advanced Universal and Active Directory' is available. Backup application to be managed from primary DC.
- l. Configure the scheduled backup for Virtual Machine (VM) snapshot and data backup.
- m. Subscribe, Installation and configuration of managed endpoint protection security software, with auto installation of agents on all clients connected to managed server and end user notebooks on windows 10/8 OS and Mac OS.
- n. Configure the regular housekeeping of clearance of old files such as logs, application unused files, etc. for all servers and applications wherever applicable.
- o. Two units of UPS backup power supply (for about 30 minutes standby) with managed auto shutoff of all systems in case of power failure as follows:
 - i. One unit of UPS to support the proposed server based on sizing, KVM, managed switches along with Exagrid EX3000 and Dell MD320i hardware.
 - ii. One unit of UPS to support 3 units of network switches, firewall, phone servers, and a router.
- p. NTP time sync on all the devices both existing and proposed new system.
- q. The proposed new system shall be accessible via the existing VPN configuration.
- r. All the scheduled reporting and alert notification to be configured wherever applicable for the proposed new system. The SMTP shall be using the office 365 mail system.
- s. The proposed hardware to be configured for high availability, fail over and load balancing where applicable.

- t. Includes necessary configuration on firewall, access points and switches along with necessary cabling and proper labelling.
- u. Configuring and fine tuning the Firewall policies and SSID profile policies based on the new system requirement and media access restrictions.
- v. Decommissioning of old hardware and appropriate cabling.
- w. Editable network diagram, build-as documentation and formatting of Reports.
- x. Perform test backup and restore. Verify restore.
- y. User Acceptance Testing (UAT) and trial run for all applications including mobile platform, where applicable;
- z. Pre-production upgrade test plan, post-production upgrade test plan, and upgrade failure recovery plan

B. REQUIREMENTS

- a. Contractor must be a Microsoft Certified Solution Provider and have achieved at least a Gold Partner status or competency in year 2017
- b. Integration with Microsoft Office 365 for email alerts and scheduled notifications for all applications;
- c. Targeted user training on usage of implemented systems. Business owner's approval to be sought on migration of respective business application and testing.
- d. Handholding until Project Go-live;
- e. All other related products and services where necessary to complete the project successfully;
- f. The contractor shall be able to provide excellent after-sales service and has a good track record. The contractor to provide minimum of three testimonials/reviews as proof from similar company size with staff strength of 80-100;
- g. The contractor is required to work closely with all the application/hardware vendors, inclusive of third-party suppliers to provide end to end services on the respective business applications and its data migration to proposed new system infrastructure.
- h. Able to provide unlimited 24x7 phone and email support - within 1-4 hours of issue resolution time based on criticality of the reported issue.
- i. The project tasks that requires system downtime can be carried out only on approval from respective FAS business owners. If required, such tasks may be scheduled on weekends to minimize the disruption to FAS business operation.
- j. Dedicated Account Manager and Consultants from the start of the project to post project period including the provision of technical support (by phone, email or on site) as and when necessary.
- k. Regulatory Compliance

All documents listed are mandatory, as applicable. The list is not all-inclusive

- i. Where applicable, products shall be IPv6 compliant. An IPv6 compliant product or system must be able to receive, process, and transmit or

forward (as appropriate) IPv6 packets and should interoperate with other systems and protocols in both IPv4 and IPv6 modes of operation.

- ii. Certain products (e.g., 100% of Servers, Network devices, UPS, etc.) available for purchase on this contract must be Energy Star®-qualified.

CONTRACTOR'S OBLIGATIONS & RESPONSIBILITIES

- 3.1 The Contractor shall have good knowledge and experience of systems implementation and the necessary technical know-how;
- 3.2 The Contractor shall ensure that the work is completed within the stipulated time-frame (refer to Appendix 4);

COMMENCEMENT OF WORKS

- 4.1 Work should commence immediately upon the issue of Letter of Acceptance by the FAS and must be completed by the project end-date in accordance with the stipulated time-frame.

CONTRACT SUM

- 5.1 The rates quoted in the Schedule to Form of Tender shall be deemed to include the supply of all necessary manpower, systems and tools, contractor's travel and transport expenses, overheads and all other associated costs.

PROPOSAL BY TENDERERS

- 6.1 Tenderers proposals shall include any additional services that may be required.

EVALUATION CRITERIA

- 7.1 The proposals received will be evaluated based on the following criteria:
 - a. Debarment Status
 - i. The Tenderer shall not have been debarred, on or after the closing date of tender from participating in public-sector projects by the Standing Committee on Debarment c/o Ministry of Finance,
 - b. Full compliance with components of the Tender
 - i. The Proposal shall comply fully with the Scope of Work/Services.
 - c. Other Evaluation Criteria will be as follows:

Factors	Weightage (%)
Price Competitiveness	70
Proposal is Comprehensive and best meets the objectives and requirements of the project	20
Contractor Support Level (e.g. Dedicated project support)	10

Appendix 1. Sage Accounting Application

Minimum requirement as below:

Database server operating systems

Microsoft SQL Server 2012, 2014, 2016 or 2017 on Windows Server 2012 R2, or 2016 are supported for use as the database server for Sage 300 2019.

Note the following points:

- Microsoft SQL Server Enterprise, Standard, and Express Editions are supported.
- For Microsoft SQL databases, we recommend using a binary collation method, such as Latin1_general_bin.
- Sage 300 2016 and higher only supports Microsoft SQL Server as a database server.
- See Microsoft's websites for limitations of their databases.

Sage 300 application server operating systems

Windows Server 2012 R2 or 2016 are supported as the application server for Sage 300 2019. Note the following points:

- Sage supports only the 64-bit version of any application server operating system.
- Terminal Server and Citrix XenApp are supported only for Sage 300 Classic (Visual Basic) programs, not for web screens.

Workstation operating systems

The 64-bit versions of Windows 7 (SP1) and Windows 10 are supported as the workstation operating system for Sage 300 2019.

Supported editions are as follows:

- Windows 10: Pro and Enterprise editions
- Windows 7: Professional, Enterprise, and Ultimate editions

Additional notes:

- Microsoft Excel 2010, 2013, or 2016 (32-bit) is required on each workstation running the GL Financial Reporter.
- Microsoft Outlook 2010, 2013, or 2016 (32-bit) is required on each workstation to use the email function.
- Microsoft Application Virtualization (App-V), which is another method to deploy Microsoft Office, is *not* supported.

Sage 300 Server Advanced:

Intel Quad Core Processor or higher
16GB RAM
5GB for application files
2GHz quad core processor or higher










Appendix 2. Sage EasyPay Enterprise

Minimum requirement as below:

Easy Pay Enterprise		
Easy Pay Enterprise	Server	Client
Operating System (OS)	Windows Server 2008/2012/2016	Windows 7/8/10
Processor (CPU)	Intel Core i5 or above, or Xeon processors, 3.0 GHz	32 or 64-bit CPU, 2 GHz
Memory (RAM)	16GB	8GB
Hard Disk space	500GB	100GB
Network ports	Sybase: 2638	
Desktop setting	1024x768 16/24/32bit colour depth	1024x768 16/24/32bit colour depth
64-Bit Windows Support: Sage EasyPay is a 32-bit application that has been tested to work under 32-bit emulation transparently on 64-bit Windows. To work correctly with third-party software such as Microsoft Excel, 32-bit versions must be installed.		
*Windows 8 and Windows Server 2012 Support: Windows 8 and Windows Server 2012 are supported with known issues and limitations.		

Appendix 3: ManageEngine Patch Manager Plus and Asset Explorer

Minimum requirements as below:

Product Name	Option	Processor Speed	Operating system	Browsers	RAM	Hard Disk
Patch Manager Plus	1-250	~1.5 GHz		  	2GB	5GB
Windows	Windows : 7/8/8.1/10/Vista/XP Windows server : 2003/2003 R2/2008/2008 R2/2012/2012 R2/2016					
Mac	Mac 10.6,Mac 10.7,Mac 10.8,Mac 10.9,Mac 10.10,Mac 10.11,Mac 10.12					
AssetExplorer	-	700Mhz	 	  	.512GB	.200GB
Windows	Windows : 2000 + SP4/XP Professional/7/8 Windows server : 2000/2003/2008/2012					
Linux	Red Hat/Debian					
DB	MS SQL 2005/MS SQL 2008/MS SQL 2012/MS SQL 2014/PostgreSQL					
					Total RAM : 4GB	Total HD : 5GB

Appendix 4: Info- Tech Eleave System

On-Premise System Server Specification - Minimum Requirements

RAM: 8 GB and above

Processor: Core i5 and above

Hard disc: 50 GB and above Free space in C drive

OS: Windows 10 \ Windows 2012 R2 and above

Database: SQL server 2016

Asp .Net Framework: 4.0