Specifications 1 – Support and Maintenance

Support Code

M	Mandatory on-site support required. Max downtime 24 hours. Replacement or t-loan units to be provided within 1 working day at no extra cost.
O	Equipment can be taken off-site for service. Max downtime 1 week. T-loan units to be provided if it exceeds the maximum downtime at no extra cost.
N	No hardware support required. SGE will manage the spare hardware. However, maintenance and configuration is part of the service requirements.
F	For future consideration. Existing support and maintenance currently managed by 3rd party reseller. *The Service Provider is to quote their maintenance price for hardware, etc. under this category. SGE has the option to engage the awarded Service Provider to assume the maintenance in future.*

1. Systems and Hardware – SGE Systems

S/N	Code	Category	Brand	Model	Description
1	**M**	Server	Lenovo	ThinkSystem SR650 [7X06CTO1WW]	Intel Xeon Silver 4216 2.1GHz Processor, 16 x 32GB RAM, 2 x 300GB SAS HDD
2	**M**	Server	Lenovo	ThinkSystem SR650 [7X06CTO1WW]	Intel Xeon Silver 4216 2.1GHz Processor, 16 x 32GB RAM, 2 x 300GB SAS HDD
3	**M**	SAN	Lenovo	DE4000F (ThinkSystem) - Type 7Y76	12 x 3.5TB SDD
4	**M**	DMZ	IBM	X3550 M5 (MT:5463)	2.4GHz, 16GB RAM, 2x240GB HDD
5	**M**	Server Backup	Lenovo	ThinkSystem SR530 (MT:7X08)	2.1GHz, 2x16GB RAM, 2x1.2TB HDD
6	**M**	SAN	Lenovo	ThinkSystem DE2000H (MT:7Y70)	12x16TB HDD
7	**M**	NAS	Synology	RS1219+	4x8TB HDD, 2x4GB RAM
8	**O**	Desktop Backup	Dell	EMC NX3240	2.0GHz, 2x8GB RAM, 2x600GB HDD, 14x1.8TB HDD
9	**O**	Tape Drive	IBM	ULT3580 HH5	
10	**O**	Tape Drive	Lenovo	6171 S7R	

Note: The *maintenance contract shall include the replacement of RAID 5/6 hard disk failures.*

2. Systems and Hardware – EV Systems

S/N	Code	Category	Brand	Model	Description
1	**M**	VM Server	HP	DL380 GEN9	16CPUs 2.4GHz, 96GB RAM, 4x300GB HDD
2	**M**	SAN	HP	MSA2040	6x900GB HDD
3	**O**	Server Backup	Lenovo	X3550 M5 (MT:5463)	2.4GHz, 16GB RAM, 4x6.0TB HDD
4	**O**	Tape Drive	IBM	3588 H6S	

Note: *The maintenance contract shall include the replacement of RAID 5/6 hard disk failures.*

3. Networks and Firewall Switches

S/N	Code	Category	Brand	Model	Description
SGE Switches and Firewall					
1	**M**	Core Switch	Cisco	WS-3850-48T-S	2 units
2	**M**	Edge Switch	Cisco	WS-C3850-24T	1 unit
3	**M**	Edge Switch	Cisco	WS-C2960-48T	14 units
4	**F**	Firewall	PAN	PA-820	1 unit
EV Switches and Firewall					
5	**N**	Core Switch	Ruckus	ICX7550-24ZP-E2	3 units
6	**N**	Edge Switch	Ruckus	ICX7150-48ZP-E8X10GR	9 units
7	**F**	Firewall	PAN	PA-450	1 unit

Note: *Palo Alto Network firewall is maintained separately by PAN approved vendor. Tenderers are welcome to quote their maintenance and support pricing even though it is not part of this tender scope.*

4. WiFi Systems

S/N	Code	Category	Brand	Model	Description
SGE WiFi System – yearly hardware renewal. Expiry 30 April 2024					
1	**M**	WiFi Controller	Ruckus	ZD1200	1 unit
2	**M**	Indoor AP	Ruckus	ZF R500	13 units
3	**M**	Indoor AP	Ruckus	ZF R510	1 unit
EV WiFi System – yearly hardware renewal. Expiry Feb 2029					
4	**N**	WiFi Controller	Ruckus	Smart Zone 144	2 units
5	**N**	Outdoor AP	Ruckus	901-T750-WW01	6 units
6	**N**	Indoor AP	Ruckus	901-R650-WW00	18 units

SGE WiFi: *Please include yearly maintenance contract renewal with the Ruckus in the tender quote.*

EV WiFi: *Please quote troubleshooting and configuration support only. It could also be part of the service request package (**main document section 4**).*

5. UPS Systems

S/N	Code	Category	Brand	Model	Description
1	**M**	UPS	APC	Smart-UPS SRT 3000 (SKU Number: SRT3000RMXLI)	7 units
2	**M**	UPS Network Management Card 3 with Environmental Monitoring	APC	AP9641	7 units
3	**M**	Battery Pack	APC	Internal	7 units
4	**M**			Battery Pack	4 units

6. Systems Software

Service Provider is expected to be able to support, troubleshoot and configure the following systems software.

S/N	Systems Software	Version
1	Windows Server Operating System	Version 2012 & above
2	VMware Vsphere	VMware Esxi 6.5 & above
3	Veeam Backup & Replication	Version 12 and above
4	Veritas Desktop & Laptop Option Backup	Version 9.0 & above
5	Trend Micro Anti-Virus Suite (for servers)	Version 11 & above

7. Support Certification

Service Provider is expected to be an authorized business partner with the systems and hardware listed above and relevant certification's to be provided together with this proposal.

Specifications 2 – Service Request (optional)

Service Provider is expected to propose a man-hour package to be activated and used for ad-hoc service request.

8. Professional Service

8.1 Professional services shall include the below items but not limited to the following:

S/N	Items
1	Delivery and mounting of new equipment.
2	Connect require networking and cables.
3	Setup and configure of new equipment.
4	Install latest version of VMware.
5	In-place upgrade of Veeam Backup and Replication software if required to support latest vSphere.
6	Upgrade vCenter.
7	Connect all hosts and storage for migration.
8	Migrate all VMs from existing hosts and storage to the new hosts and storage.
9	Install and upgrade VMware tools.
10	To ensure Veeam Backup and Replication jobs are running as per normal.
11	Decommissioning of existing hosts and storage.
12	Documentation on the setup and configuration.
13	Rectification of reported vulnerabilities and systems hardening