

REVISED TECHNICAL SPECIFICATIONS

Lot 1

Item 2. Office Computers:

DEVICE	SPECIFICATION	
CPU	i5-core (latest Gen.) processor with 2.3 GHz or higher	
RAM	8 Gb DDR4, 2400 MHz RAM (upgradable up to 16 GB) or higher.	
HDD	1 TB 7.2K RPM or higher	
Monitor	21.5 inches with LED Backlight or higher with Full HD 1920 x 1080 (Same Desktop OEM make)	
Optical media	DVD Reader/Writer	
Ethernet Card	10/100/1000 Ethernet with Wi-Fi 802.a/b/g/n.	
Operating System	Windows 10 Professional 64 bit or latest.	
Keyboard	USB US-English Keyboard(OEM)	
Mouse	USB Optical scroll mouse(OEM)	
Orientation	Tower Mode	
Ports	4 x USB ports, 1 x microphone and headphone in front panel, 6 x USB V 3.0, 1 x Display port/VGA port, audio ports in rear panel.	
Warranty	3-year onsite OEM comprehensive warranty. with OEM manufacturer's authorization certificate required.	

Item 3 Laptops:

DEVICE	SPECIFICATION	
CPU	7th Generation Intel® Core™ i7 Processors 2.70 GHz or higher	
RAM	8 GB DDR4 2400MHz or higher up gradable up to 16 GB with 2 DIMM Slots.	
HDD	500 Gb SATA HDD	
Display	15.6" or higher with FHD (1920x1080) Anti-Glare LCD With Minimum dedicated 4 GB Graphics with core i7 processor will help on better Visualizations of the project object.	
Communication & I/O Ports	1xNetwork connector (RJ-45), 3x USB 3.0, 1 x headphone/Microphone jack, Card Reader, VGA, HDMI/ Display Port, TPM 1.2 or higher, external DVD RW	
Optical	DVD Reader/Writer	
Ethernet	10/100/1000 NIC with dual band Wi-Fi and Bluetooth	
Operating System	Windows 10 Professional 64 bit or latest	
Accessories (OEM)	6 Cell Li-ion battery with at least 4 Hrs backup, Power cable & laptop charger, 1 x Laptop Bag.	
Warranty	5 -year onsite OEM comprehensive warranty with accidental Coverage	

Item 9. Anti-Virus for PC, Server , Workstation & Laptop

Component	Specification	
Architecture	Client/Server security by protecting enterprise networks from viruses, Trojans, worms, hackers, network viruses, mixed threat attack from multiple entry points, and spyware with detect malware by behavioral detection techniques.	
Protection capability	Capability to scan for viruses, worms, spywares, malware and other malicious code within every system.	
	Capability to scan system memory for viruses and capability to prevent DDOS attacks.	
	Capability to stop infection outbreaks and the capability to backup and restore data so that in case of ransomware attack data can be easily retrieved.	
Remote Installation	Capability to install/update to remote computers, servers and workstations.	
Remote Management	Capability to manage computers, workstations and workstation from a one screen web-based interface.	
OS compatibility	Windows 10 professional x64 or latest.	
Subscription	The capability to detect all in-the-wild viruses and Antivirus Engine should be certified with reputed VB100%, OPSWAT. Support - 3 Yr. subscription.	

LOT 2

Workstation Type - A

DEVICE	SPECIFICATION	
CPU	One Intel Xeon processor E5-2600 FAMILY V4 2.1Ghz, 10 Core OR BETTER, Intel Advanced Vector Extensions, Intel Trusted Execution Technology, Intel AES New instructions, Optimized Intel Turbo Boost and optional Intel vPro technology.	
RAM	64 GB(2 x 32GB) 2400 MHz DDR4 memory .Memory Upgradable up to 256 GB with minimum 8 DDR4 2400 MHz DIMM Slots.	
HDD	1 x 512 GB M.2 SSD for Boot Drive and 2 x 1 TB 2.5" SATA 7200 RPM Hard Drive. The on board HDD controller capable of RAID 0/1/5/10 in day one.	
Graphics Card	NVIDIA Quadro M5000 (GPU Memory 8 GB GDDR5 and NVIDIA CUDA Cores 2048).	
Monitor1600	27" QHD LED Monitor with 2560 x 1440 resolution, with IPS and LED Backlight. Connectors/Ports: Display Port/DVI-D, HDMI and minimum 2x USB 3.0. Monitor capable of Height, Tilt, Pivot and Swivel adjustment option. (Same OEM make of Workstation).	
Optical media	DVD Reader/Writer	
Ethernet Card	Gigabit Ethernet Port	
Operating System	Windows 10 Professional 64-bit or latest	
Keyboard	USB US-English Keyboard (OEM)	
Mouse	USB Optical scroll mouse (OEM)	
Orientation	Tower Mode	
Ports	Front: 3 USB 2.0, 1 USB 3.0, 1 Microphone & Headphone Internal: 3 x USB 2.0, 4 SATA 6Gb/s, 2 SATA 6GB/s Rear: 3 USB 2.0, 3 USB 3.0, 1 Serial, 2 PS2, 1 RJ45 (OEM Gigabit Ethernet)	
Bays	One Optical bay, one external 13.3 cm (5.25")bay, and minimum 2 Nos. 8.8 cm (3.5") Bays.	
PCI slots	Minimum 3 x PCIe x16 Gen3, 2 PCIe x16Gen2.	
Power	Power supply with power cables (OEM) with minimum 800W 90% efficient Power supply.	
Warranty	5-year onsite OEM comprehensive warrantywith OEM manufacturer's authorization certificate required.	

Workstation Type - B

DEVICE	SPECIFICATION	
CPU	Two Intel Xeon processor E5-2695 V4 2.1Ghz with Turbo Speed 3.30 GHz, 18C, Intel Advanced Vector Extensions, Intel Trusted Execution Technology, Intel AES New instructions, Optimized Intel Turbo Boost and optional Intel vPro technology.	
RAM	128 GB(4 x 32GB) 2400 MHz DDR4 memory .Memory Upgradable up to 256 GB with minimum 8 DDR4 2400 MHz DIMM Slots. Or better	
HDD	1 x 512 GB M.2 SSD for Boot Drive and 2 x 1.2 TB 2.5" SAS 10K RPM Hard Drive. The on board HDD controller capable of RAID 0/1/5/10 in day one.	
Graphics Card	NVIDIA Quadro M6000 (GPU Memory 24 GB GDDR5 and NVIDIA CUDA Cores 2048)	
Monitor	2 x 27" QHD LED Monitor with 2560 x 1440 resolution, with IPS and LED Backlight. Connectors/Ports: Display Port/DVI-D, HDMI and minimum 2x USB 3.0. Monitor capable of Height, Tilt, Pivot and Swivel adjustment option. (Same OEM make of Workstation).	
Optical media	DVD Reader/Writer	
Ethernet Card	2 Gigabit Ethernet Port	
Operating System	Windows 10 Professional 64-bit or latest	
Keyboard	USB US-English Keyboard (OEM)	
Mouse	USB Optical scroll mouse (OEM)	
Orientation	Tower Mode	
Ports	Front : 3 USB 2.0, 1 USB 3.0, 1 Microphone & Headphone Internal: 3 x USB 2.0, 4 SATA 6Gb/s, 2 SATA 6GB/s Rear: 3 USB 2.0, 3 USB 3.0, 1 Serial, 2 PS2, 1 RJ45 (intel Gigabit Ethernet)	
Bays	One Optical bay, one external 13.3 cm (5.25")bay, and minimum 2 Nos. 8.8 cm (3.5") Bays.	
PCI slots	Minimum 3 x PCIe x16 Gen3, 2 PCIe x16Gen2	
Power	Power supply with power cables (OEM) with minimum 800W Power supply.	
Warranty	5-year onsite OEM comprehensive warranty with OEM manufacturer's authorization certificate required.	

Server:

Device	Specification	
CPU	2 x Intel Xeon E5-2640 v4 2.4GHz,25M Cache,8.0GT/s QPI,Turbo,HT,10C/20T (90W) Max Mem 2133MHz	
RAM	64 GB(2x32GB) DDR4 RAM or higher (support up to 1.5 TB) with 24 DIMM slots & 2400 MT/s	
HDD	4 x 900GB 15K rpm SAS in RAID 10	
Ethernet	4 x 1 Gb, 2 x 10 Gb	
Optical media	DVD/CD Reader/Writer	
OS	Windows Server 2012 R2 Enterprise edition 64 bit or latest Enterprise Windows Server OS with free next OS upgradation option. Media or download link with perpetual license	
OS-certification	MS Windows ISO 9001 & ISO 14001, Certification: ISO 9001/9002, Energy star 5.0 Complaint.	
Orientation	Rack Mode	
HBA	2 x Dual port HBA capable of supporting speed of minimum of 8 GBPS.	
Power	Hot Pluggable Redundant Power Supply Min 750 Watt.	
CAL	Max of 30 Clients may be working simultaneously.	
Raid Support	Raid 5	
Expansion Slots	07 PCIe slots with support to full and Half slots	
Accessories (OEM)	Power cables, adapters, rails, screws and other accessories as may be needed, for mounting, power supply, Display cables etc to make the server operational.	
Warranty	5-year onsite OEM comprehensive warranty.(OEM supplied model Warranty must be visible in OEM website in respect to each product serial number) with OEM manufacturer's authorization certificate required.	

7. Layer 3 switch specification		
Advanced Switching	Layer 3,	
Communication Mode	Half-duplex, full-duplex	
Compliant Standards	IEEE 802.3, IEEE 802.3u, IEEE 802.3z, IEEE 802.1D, IEEE 802.1Q, IEEE 802.3ab, IEEE 802.1p, IEEE 802.3x, IEEE 802.3ad (LACP), IEEE 802.1w, IEEE 802.1x, IEEE 802.1s	
Data Link Protocol	Ethernet, Fast Ethernet, Gigabit Ethernet	
Data Transfer Rate	1 Gbps	
Device Type	Switch – managed	
Dimensions (WxDxH)	Should fit in a standard rack.	
Empty Slots	4 x SFP (mini-GBIC)	

Features	Full duplex capability, layer 3 switching, layer 2 switching, auto-sensing per device, IP-routing, DHCP support, auto-negotiation, trunking, MPLS support, VLAN support, auto-uplink (auto MDI/MDI-X), IGMP snooping, traffic shaping, manageable, DHCP snooping, Dynamic Trunking Protocol (DTP) support, Port Aggregation Protocol (PAgP) support, Trivial File Transfer Protocol (TFTP) support, Access Control List (ACL) support, Quality of Service (QoS), DHCP server, Virtual Route Forwarding-Lite (VRF-Lite), MLD snooping, Dynamic ARP Inspection (DAI), Time Domain Reflectometry (TDR)	
Flash Memory	32 MB	
Form Factor	External - 1U	
Ports Qty	24 x Ethernet 10Base-T, Ethernet 100Base-TX, Ethernet 1000Base-T	
Power	AC 120/230 V (50/60 Hz)	
RAM	128 MB	
Remote Management Protocol	SNMP 1, RMON 1, RMON 2, RMON 3, RMON 9, Telnet, SNMP 3, SNMP 2c, HTTP, SSH-2	
Power	2 RPS, 2 Power cables, adapters, rails, screws and other accessories as may be needed, for mounting, power supply etc. to make the switch operational.(All OEM)	
Warranty	5 years	

9. Rack for Server:-	Compliance (Yes/No)
Unit-42U	
Rack Size = 800 x 1000 MM	
Vertical Cable manager both side	
Metered PDU 16 point (universal)-2 nos.	
Earthing kit	
Front door is locking, reversible & removable	
Rear door are locking & reversible	
Locking removable side panels are 'half-size'	
Open top & bottom for cable access	
Cooling fan tray with 4 Fans	
Castor wheel with two breaks	
5yrs. Warranty	

TECHNICAL SPECIFICATIONS

Lot 3

2. IP Camera
1/3" Progressive Scan CMOS 3MP
25/30 fps @ 1080P
Day/Night(ICR), AWB, AGC, BLC, 3D-DNR
Bullet IR Range of 30M, Smart IR and illumination 0.028Lux @ (F2.0, AGC ON) ,0 Lux with IR.
High Speed, long distance real time transmission
IP67, D-WDR with Appoval UL, CE, EN, IK10 (Vandal Proof), IP66 (Weather Proof).
Support SD/SDHX & other cards.
Warranty Two year.

TECHNICAL SPECIFICATIONS

Lot 4

1. Conference Display:	Compliance (Yes/No)
LED Monitor, Panel Technology IPS, Screen Size 75" (diagonal) or Higher, Aspect Ratio 16:09, Native Resolution 3,840 x 2,160 (ULTRA HD), Brightness 350nit or cd/m2, Contrast Ratio Up to 1,400 : 1, Dynamic Contrast Ratio for DTV 2,000,000:1 or higher, Viewing Angle (H x V) 178 x 178 degree, Connectivity Inputs HDMI, DP, DVI-D, Audio, USB 3.0, SD Card, Outputs DP, Audio External Control RS232C, RJ45, IR Receiver, Pixel Sensor, Temperature & Auto Brightness Sensor, up to 15x15 Tile Mode, ISM Method, Wi-Fi mirroring built-in, PBP/PIP, USB Cloning, Contents Scheduling, Sync mode, PM mode, Fail Over, Wake on LAN. Typical / Smart Energy Saving 160W(Typ) / 115W(SES), Industrial Grade / Certification Safety UL / cUL / CB / TUV / KC. warranty support 3 Years.	

2. Video Conferencing Systems (VCS):	Compliance (Yes/No)
The components required for a videoconferencing system include: Must support Unicast and Multicast to Standard WMV/VLC Clients of 20 users minimum.	
Video input: Video camera	
Video output: Computer monitor, television or projector	
Audio input: Microphones or any other source of PreAmp audio outlet.	
Audio output: Loudspeakers associated with display device or telephone	
Data transfer: Analog or digital telephone network, LAN or Internet Must support Unicast and Multicast to Standard WMV/VLC Clients of 20 users minimum	
All components must come with two year warranty.	
VC device:	
Recording : Shall have built – in storage and ability to connect external hard drive , Record the Audio/ Video and Presentation Content during Video Conference, Record the Local Audio/Video even without in a call for Local Interview / Training Sessions for later view.	
Control(included) : IR Remote, Embedded Web based management, Telnet API for external control system.	
Firewall Traversal : H.460.18 ; H.460.19 ITU Standards support	
Encryption : H.235 AES and NAT	
Quality of Service(QoS): DiffServ, IP Precedence, Firewall Port Sync Port pinholing NAT IP address mask, Adaptive Bandwidth Adjustment Packet loss recovery (FEC)ss, Packet duplication control Packet ordering Jitter correction, Overhead prediction Lip sync correction, Max packet size adjustment.	
Room Integration : Ability to Integrate with external Audio DSP System through LINE IN / LINE OUT and/or Digital USB Connections.	
Full High Definition PTZ Camera: 1xHD 1080p 60fps resolution with 12xOptical zoom, 73-degree field of view, Auto Focus/Automatic Gain Control , Camera must be separate so that the codec can be hidden behind Display if needed.	
Embedded MCU and Call Bridging : Quoted Product must be built in with 4way multi party License from day one, Endpoint Shall be able to bridge/merge H.323 Video and SIP(audio only) call connection.	
Video Outputs : Dual HD Output (DVI or HDMI); Dual Display support	
Video Inputs : HD Camera Input(HDMI/DVI or Equivalent), PC Content Input (HDMI/DVI-I Port)	

Live Video Resolution: 1080p60fps Transmit and Receive	
Data Sharing: Wired and Wireless & Video Layouts Support HD Data Sharing at 1080p Resolution using H.239 ITU Standard. System shall be supplied with 4-user wireless presentation and shall be upgradeable to 6 users with software license. System shall have capability to stream content live to remote viewers and record in-room wireless presentations along with video and audio for future on-demand archiving and access. System shall support different layout options such as Full screen, Mosaic Tile Layout. Shall have the capability to beam the presentation to participants own devices giving freedom to watch in their preferred layouts. System shall have capability to generate dynamic access codes keep the meeting secure, and control what to share on-screen, ensuring nothing private is accidentally revealed.	
Video Standards : H.261, H.263, H.263+/++, H.264, H.264 High Profile/AVC for minimum bandwidth for higher resolution.	
Cloud License: Shall have built in Cloud License to support Virtual Meeting Room supporting up to 25 Participants Connectivity. Shall be able to connect via PC/Mac/iOS/Android Devices.	
Video conferencing software should be intrigued in conference using a laptop or smart phone/tab.	
Warranty support One year From day one.	