

Terms of Reference

CCTV System

Background

The Philippine Department of Tourism (DOT) is the primary government agency charged with the responsibility to encourage, promote, and develop tourism as a major socio-economic activity to generate foreign currency, business and employment and to spread the benefits of tourism to the Filipino people.

To provide improve security for both DOT officials, employees, tourist and tourism stakeholders, department aims to replace the defective existing closed-circuit television (CCTV) system with much more advance and more capabilities.

Objective

- To provide officials and staff improve and promote security.
- Aims to update the security technologies within the offices and control areas of the Department in order to monitor events and activities.
- Enhance security for DOT personnel and vehicles at entry and exit points for all offices and control areas.
- Gather and obtain statistics, data, and information that will enable the Department of Tourism to manage and regulate inflow and outflow of all vehicular and personnel movement within the Department's offices and control areas
- To enforce rules and regulations of the Department and make responsive decisions with regards to effective enforcement of safety and security policies.
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Scope of the work

1. Supply, delivery, installation and deployment of a new CCTV system consisting of 55 CCTV camera, 1 Central Video Management Server, 1 CCTV Storage, 1 workstation, 1 uninterrupted power supply, 6 POE network switch and 3 monitor at the New DOT Bldg. in Makati City.
 - Shall also integrate the existing CCTV camera to the new CCTV system
 - Must be able to store or record video for at least 30 days.
2. Delivery service shall be free of charge; Delivery at DOT main office, 351 Sen Gil Puyat Ave Makati City.
3. The Contractor shall perform the installation, testing and commissioning of all equipment. All necessary tests, services and inspections to assure the system functions and shall be checked and approved before the acceptance test. Consideration shall be given to the fact that installation or tests of other systems within the same building may be carried out during the same period.
 - The, work includes the furnishings of materials, cables, consumable materials, facilities, civil works, labor, tools, equipment, test instruments, apparatus, specialties and other services necessary to complete the installation and commissioning of the CCTV System at the New DOT Bldg.
 - The project must be completed within thirty (30) calendar days including delivery of equipment upon receipt of notice to proceed.
 - The contractor shall have access to the site seven (7) days a week from

8pm to 5am starting on the date of receipt of the Notice to Proceed. All works should be coordinated with DOT on a weekly basis and can be revoked or suspended.

- The contractor shall submit a weekly progress report.
 - The contractor shall submit the following documentation to DOT upon completion of the project.
 - As-built diagram
 - System brochures/documentation for systems operational & Maintenance/User Manuals-one [1] original and three [3] copies.
 - Detailed equipment list stating the location, make model, serial numbers, firm ware among others.
 - Result of system test as per manufacturer standards
 - System and Workmanship Warranty/Guarantee
 - Certification of Parts availability and support for One [1] year
 - Training Certification of attendees for Operations and Maintenance of the system.
4. The installation must include wireless connectivity for the cameras to be installed inside the elevators.
 5. The Contractor shall submit a detailed work plan to be presented during the project kick-off.
 6. The Contractor shall prepare and furnish fully dimensioned scaled drawings of builder's work arising from the installation of the equipment and system as well as for the equipment layout plans at various locations.
 7. The work drawings shall show:
 - The general arrangement of cabinets and other facilities in the equipment areas as well as the operational area
 - The general arrangement of cabling within the system.
 8. As soon as the commissioning of the equipment and system have been completed, the Contractor shall amend or correct all his Approved Drawings, if so required, furnish three (3) sets of prints of all "As-built" drawings showing the works as finally installed and commissioned. These drawings shall be furnished in hard bound covers
 9. One (1) set of "As-built" drawings will be submitted in digital format in a USB drive
 10. The "As-built" drawings shall show the general arrangement of all equipment's and auxiliaries, positions of all electrical outlets, fittings, switches, switch-boards and control panels, cables, pipes, ducts runs, markers and underground ducts, inter-wiriness, schedules, plant manufacturers name plates, models and type numbers and other information necessary to facilitate routine inspection and maintenance of installation.
 11. Roughing-ins including supports, boxes, fittings, cover plates, mounting brackets should be provided by the contractor.

Eligibility Requirements

- A. Must have at least five (5) years of existence.
- B. Must have completed a similar project.
- C. Must offer CCTV brand or manufacturer that is not barred or banned by any country due to cyber security issues.
- D. Must offer CCTV brand or manufacturer that is ONVIF compliant
- E. Must offer a CCTV provider that produces own hardware and develops its own software applications.
- F. Must have at least two (2) certified technicians. Copies of their CV and certification to be provided.
- G. Claiming, providing and submitting false information during procurement process shall be immediately disqualify from the bidding. This is for the Department and committee protection from dishonest supplier purposely providing ICT equipment

that are but not limited to overpricing, non-compliance ICT equipment, toy like ICT equipment, etc.

- H. Must present notarized certificates- one original each and two certified true copies, from the Original Equipment Manufacturer (OEM) stating the following:
- i. The Bidder is a duly recognized and authorized country reseller by the Original Equipment Manufacturer.
 - ii. The Bidder is recognized and authorized to support the DOT project by the OEM.
 - iii. The Bidder is authorized by the OEM systems manufacturer to extend the manufacturer's warranty support for the project.
 - iv. That the OEM systems manufacturer will guarantee the availability of spare parts for the system for not less than three (3) years from the date of commissioning of the system by the Department of Tourism.

Documentation Requirements

- A. Three (3) sets of As-built drawings in hard bound covers
- B. One (1) set of As-built drawings in digital format in a USB drive
- C. Network diagram and System Architecture
- D. System brochures/documentation for systems operational & Maintenance/User Manuals-one [1] original and three [3] copies.
- E. Detailed equipment list stating the location, make model, serial numbers, firm ware among others.
- F. Result of system test as per manufacturer standards
- G. System and Workmanship Warranty/Guarantee
- H. Certification of Parts availability and support for One [1] year
- I. Training material
- J. Training Certification of attendees for Operations and Maintenance of the system.

Training Requirements

- A. Training for at least 10 participants (GSD, Security, ITD)
 1. End user product and configuration training
 2. Troubleshooting and Maintenance
- B. Training will be conducted on-site. Based on the availability of the DOT trainees.
- C. Training material to be provided by the Contractor

Maintenance Requirements

DOT needs a comprehensive maintenance service to include fault prevention, adjustments, corrections, repairs and replacements- During the warranty period the contractor is required to provide the following:

- 4- hours response time on server hardware, 24 x 7 (remote, onsite if needed)
- Software technical assistance
- Software/firmware updates if necessary
- NBD for CCTV software and hardware

Service Feature Highlights

- Remote problem diagnosis support for hardware products
- Onsite hardware support
- Materials excluding consumables
- Onsite response time for hardware support
- Work to completion for hardware support
- Escalation/Service Level Management
- Firmware and documentation updates

- Electronic support information and services
- Electronic remote support

Technical Specification of ICT Equipment

Item	Description	Qty
1	Indoor Dome CCTV Camera	21
	VIDEO	
	Imaging Device	At least 1/2.8" 2MP CMOS
	Resolution	1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360
	Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 15fps/12fps(60Hz/50Hz)
	Min. Illumination	Color: 0.03Lux(F1.6, 1/30sec) BW: 0Lux(IR LED on)
	Video Out	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation
	LENS	
	Focal Length (Zoom Ratio)	3.2~10mm(3.1x) manual varifocal
	Max. Aperture Ratio	F1.6(Wide)~F2.9(Tele)
	Angular Field of View	H: 109.0°(Wide)~33.2°(Tele) / V: 57.4°(Wide)~18.7°(Tele) / D: 132.0°(Wide)~38.0°(Tele)
	Focus Control	Manual
	Lens Type	DC auto iris
	Pan / Tilt / Rotate Range	0°~350° / 0°~67° / 0°~355°
	OPERATIONAL	
	Camera Title	Displayed up to 85 characters
	Day & Night	Auto(ICR)
	Backlight Compensation	BLC, WDR, SSSDR
	Wide Dynamic Range	At least 120dB
	Digital Noise Reduction	The images should be cleaner, sharper and retain more detail. The images are captured in low light applications, has usually the high levels of noise which make them unusable. Therefore, the noise should be eliminated, or even greatly reduced, this will greatly enhance the performance of a camera. With reduced noise, it will keep image file sizes down when recorded digitally.
	Motion Detection	4ea, polygonal zones
	Privacy Masking	6ea, rectangular zones
	Gain Control	Low / Middle / High
	White Balance	ATW / AWC / Manual / Indoor / Outdoor
	LDC	Support

	Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1/5~1/12,000sec)	
	Video Rotation	Flip, Mirror, Hallway view(90°/270°)	
	Analytics	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	
	Alarm I/O	Input 1ea / Output 1ea	
	Alarm Triggers	Analytics, Network disconnect, Alarm input	
	Alarm Events	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers Alarm output	
	Audio In	Built-in mic	
	IR Viewable Length	20m(65.62ft)	
	NETWORK		
	Ethernet	RJ-45(10/100BASE-T)	
	Video Compression	H.265/H.264: Main/High, MJPEG	
	Audio Compression	G.711 u-law /G.726 Selectable G.726(ADPCM) 8KHz, G.711 8KHz G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps	
	Bitrate Control	H.264/H.265: CBR or VBR	
		MJPEG: VBR	
	Streaming	Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles)	
	Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP	
	Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP)	
	GENERAL		
	Web Viewer	Supported OS: Windows 7, 8.1, 10, Mac OSx10.12, 10.13, 10.14 Supported Browser: Google Chrome, MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari (Mac OSX)	
	Edge Storage	Micro SD/SDHC/SDXC 1slot 128GB	
	Memory	512MB RAM, 256MB Flash	
	ENVIRONMENTAL & ELECTRICAL		
	Operating Temperature / Humidity	-10°C ~ +55°C(+14°F ~ +131°F) / Less than 90% RH	
	Storage Temperature / Humidity	-30°C ~ +60°C(-22°F ~ +140°F) / Less than 90% RH	

	Input Voltage	PoE(IEEE802.3af, Class3), 12VDC	
	Power Consumption	PoE: Max 7.70W, typical 6.00W 12VDC: Max 6.50W, typical 5.10W	
2	Outdoor Bullet CCTV Camera		30
	VIDEO		
	Imaging Device	At least 1/2.8" 2MP CMOS	
	Resolution	1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360	
	Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 15fps/12fps(60Hz/50Hz)	
	Min. Illumination	Color: 0.03Lux(F1.6, 1/30sec) BW: 0Lux(IR LED on)	
	Video Out	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation	
	LENS		
	Focal Length (Zoom Ratio)	3.2~10mm(3.1x) manual varifocal	
	Max. Aperture Ratio	F1.6(Wide)~F2.9(Tele)	
	Angular Field of View	H: 109.0°(Wide)~33.2°(Tele) / V: 57.4°(Wide)~18.7°(Tele) / D: 132.0°(Wide)~38.0°(Tele)	
	Focus Control	Manual	
	Lens Type	DC auto iris	
	OPERATIONAL		
	Camera Title	Displayed up to 85 characters	
	Day & Night	Auto(ICR)	
	Backlight Compensation	BLC, WDR, SSSR	
	Wide Dynamic Range	At least 120dB	
	Digital Noise Reduction	The images should be cleaner, sharper and retain more detail. The images are captured in low light applications, has usually the high levels of noise which make them unusable. Therefore, the noise should be eliminated, or even greatly reduced, this will greatly enhance the performance of a camera. With reduced noise, it will keep image file sizes down when recorded digitally.	
	Motion Detection	4ea, polygonal zones	
	Privacy Masking	6ea, rectangular zones	
	Gain Control	Low / Middle / High	
	White Balance	ATW / AWC / Manual / Indoor / Outdoor	
	Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1/5~1/12,000sec)	
	Video Rotation	Flip, Mirror, Hallway view(90°/270°)	

	Analytics	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	
	Alarm I/O	Input 1ea / Output 1ea	
	Alarm Triggers	Analytics, Network disconnect, Alarm input	
	Alarm Events	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers Alarm output	
	Audio In	Selectable(mic in/line in)	
		Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm	
	IR Viewable Length	30m(98.42ft)	
	NETWORK		
	Ethernet	RJ-45(10/100BASE-T)	
	Video Compression	H.265/H.264: Main/High, MJPEG	
	Audio Compression	G.711 u-law /G.726 Selectable G.726(ADPCM) 8KHz, G.711 8KHz G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps	
	Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR	
	Streaming	Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles)	
	Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP	
	Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP)	
	GENERAL		
	Web Viewer	Supported OS: Windows 7, 8.1, 10, Mac OSx10.12, 10.13, 10.14 Supported Browser: Google Chrome, MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari (Mac OSX)	
	Edge Storage	Micro SD/SDHC/SDXC 1slot 128GB	
	Memory	512MB RAM, 256MB Flash	
	ENVIRONMENTAL / ELECTRICAL		
	Operating Temperature / Humidity	-30°C ~ +55°C(-22°F ~ +131°F) / Less than 90% RH	

	Storage Temperature / Humidity	-30°C ~ +60°C(-22°F ~ +140°F) / Less than 90% RH	
	Certification	IP66, IK10	
	Input Voltage	PoE(IEEE802.3af, Class3), 12VDC	
	Power Consumption	PoE: Max 7.40W, typical 5.40W 12VDC: Max 6.50W, typical 4.80W	
3	Mini Dome CCTV Camera for elevators		2
	VIDEO		
	Imaging Device	At least 1/2.8" 2MP CMOS	
	Resolution	1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360	
	Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 15fps/12fps(60Hz/50Hz)	
	Min. Illumination	Color: 0.03Lux(F2.0, 1/30sec)	
	LENS		
	Focal Length (Zoom Ratio)	2.8mm fixed focal	
	Max. Aperture Ratio	F2.0	
	Angular Field of View	H: 113.7 / V: 61.5° / D: 134.5°	
	Focus Control	Fixed	
	Pan / Tilt / Rotate Range	0°~350° / 0°~69° / 0°~355°	
	OPERATIONAL		
	Camera Title	Displayed up to 85 characters	
	Day & Night	Auto(Electrical)	
	Backlight Compensation	BLC, WDR, SSSR	
	Wide Dynamic Range	120dB	
	Digital Noise Reduction	The images should be cleaner, sharper and retain more detail. The images are captured in low light applications, has usually the high levels of noise which make them unusable. Therefore, the noise should be eliminated, or even greatly reduced, this will greatly enhance the performance of a camera. With reduced noise, it will keep image file sizes down when recorded digitally.	
	Motion Detection	4ea, polygonal zones	
	Privacy Masking	6ea, rectangular zones	
	Gain Control	Low / Middle / High	
	White Balance	ATW / AWC / Manual / Indoor / Outdoor	
	Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1/5~1/12,000sec)	
	Video Rotation	Flip, Mirror, Hallway view(90°/270°)	

	Analytics	Defocus detection, Motion detection, Tampering	
	Business Intelligence	People counting	
	Alarm Triggers	Analytics, Network disconnect	
	Alarm Events	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers	
	NETWORK		
	Ethernet	RJ-45(10/100BASE-T)	
	Video Compression	H.265/H.264: Main/High, MJPEG	
	Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR	
	Streaming	Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles)	
	Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP	
	Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP)	
	GENERAL		
	Web Viewer	Supported OS: Windows 7, 8.1, 10, Mac OSx10.12, 10.13, 10.14 Supported Browser: Google Chrome, MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari (Mac OSX)	
	Edge Storage	Micro SD/SDHC/SDXC 1slot 128GB	
	Memory	512MB RAM, 256MB Flash	
	ENVIRONMENTAL & ELECTRICAL		
	Operating Temperature / Humidity	-10°C ~ +55°C(-14°F ~ +131°F) / Less than 90% RH	
	Storage Temperature / Humidity	-30°C ~ +60°C(-22°F ~ +140°F) / Less than 90% RH	
	Certification	IP42, IK08	
	Input Voltage	PoE(IEEE802.3af, Class2)	
	Power Consumption	PoE: Max 4.80W, typical 2.80W	
4	Outdoor Bullet CCTV Camera with LPR		2
	VIDEO		
	Imaging Device	At least 1/1.8" CMOS	

		- Classified object type : Person/Face/Vehicle/License plate with attributes, BestShot per object	
		- Analytics events based on AI engine : Object detection, Face mask detection, Directional detection, Digital auto tracking, Enter/Exit, Loitering, Virtual line	
	Analytics	- Analytics events : Defocus detection, Motion detection, Appear/Disappear, Tampering, Audio detection, Sound classification, Shock detection	
	Business Intelligence	People counting, Queue management, Heatmap based on AI engine	
	Alarm I/O	Input 1ea / Output 1ea / DC 12V Power(Max. 50mA) 1ea	
	Alarm Triggers	Analytics, Network disconnect, Alarm input	
	Alarm Events	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers Alarm output Handover Audio playback	
	Audio In	Selectable(mic in/line in)	
		Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm	
	Audio Out	Line out, Max.output level: 1Vrms	
	IR Viewable Length	30m(98.42ft)	
	NETWORK		
	Ethernet	Metal shielded RJ-45(10/100/1000 BASE-T)	
	Video Compression	H.265/H.264: Main/High, MJPEG	
	Audio Compression	G.711 u-law /G.726 Selectable	
		G.726(ADPCM) 8KHz, G.711 8KHz	
		G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps	
		AAC-LC: 48Kbps at 16KHz	
	Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR	
	Streaming	Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles)	
	Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, SRTP (TCP, UDP Unicast)	
	Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP) Device Certificate(Hanwha Techwin Root CA)	

	GENERAL		
	Web Viewer	Supported OS: Windows 7, 8.1, 10, Mac OSx10.12, 10.13, 10.14 Supported Browser: Google Chrome, MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari (Mac OSX)	
	Edge Storage	Micro SD/SDHC/SDXC 2slots 512GB	
	Memory	4096MB RAM, 512MB Flash	
	ENVIRONMENTAL & ELECTRICAL		
	Operating Temperature / Humidity	-40°C ~ +55°C(-40°F ~ +131°F) / Less than 90% RH	
	Storage Temperature / Humidity	-50°C ~ +60°C(-58°F ~ +140°F) / Less than 90% RH	
	Certification	IP66/IP67, IK10, NEMA4X	
	Input Voltage	PoE+(IEEE802.3at), 12VDC	
	Power Consumption	PoE+: Max 20.0W, typical 17.00W 12VDC: Max 18.00W, typical 16.00W	
5	Central Video Management Software		1
	SYSTEM MANAGEMENT		
	Camera Connection	Up to 3,000 channels	
	Server Clustering	Data sharing, Failure management	
	System Dashboard	Real-time system status monitoring	
	User Management	Configurable user group, LDAP supported Device access authority, Feature level authority	
	Security	SSL, Database encryption, Login lockdown, Multi-level user access authority	
	Federation	Multi-tier domain federation, Max 100 domains	
	DEVICE MANAGEMENT		
	Centralized Device Configuration	Auto / Manual discovery, Device and add-on server registration	
	Maintenance	Setup file backup / restore, Device firmware update	
	EVENT MANAGEMENT		
	Event Configuration	4 levels event priority, Configurable event color	
	Event Action	Rule based event and triggering action setup Instant viewer pop-up, Alert sound, E-mail notification	
	SITE / LAYOUT / MAP DESIGN		

	Multi-Layered Site Configuration	Flexible site design, Site access authority	
	Layout & Pattern	User defined layout and tile pattern	
	Map	2D image map	
	RECORDING MODULE		
	Max. Camera Per Server	Up to 128 channel	
	Recording Performance	Up to 400Mbps (@4 HDD)	
	Recording Mode	Manual, Continuous, Event, Schedule	
	Pre / Post Event Recording	Pre : 10 ~ 60 sec / Post : 1,200 sec	
	RAID	Hardware RAID controller required	
	Etc.	ARB (Auto recovery backup) from camera edge storage, Recoding retention time, iSCSI support	
6	Central Video Management Server		1
	1 x PowerEdge R440 Motherboard		
	1 x Intel Xeon Gold 5217 3.0G, 8C/16T, 10.4GT/s, 11M Cache, Turbo, HT (115W) DDR4-2666		
	1 x iDRAC Group Manager, Enabled		
	1 x iDRAC Service Module (ISM), Pre-installed in OS		
	1 x iDRAC Factory Generate Password		
	1 x Chassis with up to 8 x 2.5" HOT Plug Hard Drives		
	1 x Standard Bezel		
	1 x Riser Config 1, 1 x 16 FH		
	1 x 14G OpenManage Placemat		
	1 x Quick Sync 2 (at-the-box mgmt.)		
	1 x 3200MT/s RDIMMs		
	1 x Performance Optimized		
	6 x 8GB RDIMM, 3200MT/s, Single Rank		
	1 x iDRAC, Enterprise		
	2 x 480GB SSD SATA Mix Use Gbps 512 2.5in Hot-plug AG Drive, 3 DWPD, 2628 TBW		
	1 x PERC H330 RAID Controller, Adapter, Low Profile		
	1 x Standard Heat Sink		
	1 x DVD +/-RW, SATA, Internal		
	1 x Dual, Hot Plug, Redundant Power Supply (1+1) 550W		
	2 x NEMA 5-15P to C13 Wall Plug, 10 feet (3m), 125V, 15AMP Power Cord North America		
	1 x Broadcom 5720 Dual Port 1GbE Base-T Adapter, PCIe Full Height		
	1 x Dual-Port 1GbE On-board LOM		
	1 x ReadyRails Sliding Rails With Cable Management Arm		
	1 x RAID 1		
	1 x OpenManage Enterprise Advanced		

	1 x Windows Server 2019 Standard, 16Core, Digitally Fulfilled Recovery Image, Multi Language	
	1 x Windows Server 2019 Standard, 16Core, FI, No Med, No CAL, Multi Language	
	1 x No Systems Documentation, No OpenManage DVD Kit	
	1 x For SADMG Countries only - No Installation Service Required	
	1 x Integration Information	
	1 x OpenManage Enterprise Advanced	
	1 x Basic Next Business Day 36 Months-ACDTS	
	1 x ProSupport Plus and 4Hr Mission Critical-ACDTS Initial, 36 Month(s)	
	1 x ProSupport Plus and 4Hr Mission Critical-ACDTS Extension, 24 Month(s)	
7	Workstation	1
	Enterprise or Business model Desktop	
	Equivalent to 10 th Generation Intel Core i5-10500 Processor (6 Cores/12MB/12T/3.1GHz to 4.5GHz/65W)	
	At least 360W up to 92% efficient Power Supply (80Plus Platinum)	
	Energy Star Qualified	
	EPEAT Registered	
	Must have Trusted Platform Module (TPM)	
	Must have cable cover tower	
	At least 8x DVD+/-RW 9.5mm Optical Disk Drive	
	8GB DDR4 non-ECC Memory	
	3.5" 1TB 7200rpm SATA Hard Disk Drive	
	Equivalent to NVIDIA [®] GeForce [®] GT 730, 2 GB, GDDR5	
	With speaker for tower	
	Internal Wireless Antennas	
	Equivalent to intel wi-fi 6 AX201, Dual-band 2x2 802.11ax with MU-MIMO + Bluetooth 5.1	
	1 x Gigabit LAN	
	Wired Mouse Same brand of desktop Black	
	Wired Keyboard Same brand of desktop Black	
	Latest Propriety Operating System (Professional) 64 bit	
	Must have Client System Update (for BIOS, Drivers, Firmware and Apps)	
	Must Support OS Recovery Tool	
	Equivalent to Waves Maxx Audio	
	Must have optimizer within built-in AI, intelligent audio and Intel Adaptix technology to learn usage or how a typical applications, continuously improving and applying settings to get the most nimble performance possible. Automatically tune system by adjusting background noise, managing speech volume and refining overall sound experience for every conference call in the room no matter where.	
	Must be capable of digital delivery client for safe keeping of licenses key.	
	Ports: 1 Universal Audio Jack (front) 2 USB 3.2 Gen 1 Type-A port (front) 2 USB 2.0 ports (front)	

	1 RJ-45 port 10/100/1000 Mbps (rear) 2 USB 2.0 ports with Smart Power on (rear) 2 USB 3.2 Gen 1 Type-A ports (rear) 1 Line-out audio port (rear) 1 DisplayPort 1.4 (rear) 1 HDMI 1.4 port (rear) 1 Optional 3rd Video Port (VGA/DP 1.4/HDMI 2.0b) 1 Serial /PS2 slot (optional)	
	Warranty and Support	
	Limited Warranty: 3 years labor and parts – PH : at least 1 year on battery and accessories	
	3Yr Technical Support –PH Parts and labor response 7x24 Technical Support & Assistance: PH Same or NBD Onsite Service – PH Direct Online cases and dispatch Dispatch monitoring and crisis management Escalation management Collaborative 3 rd party assistance Predictive / proactive automated issue detection, notification and case creation Predictive / proactive issue detection for failure prevention VIP / Priority Access to engineers Accidental damage repair Hard Drive Retention Dedicated Technical Account Handler Monthly support history and contract reporting	
8	CCTV Storage	1
	1 x PowerEdge R740/R740XD Motherboard	
	2 x Intel Xeon Silver 4212 2.2G, 12C/24T, 9.6GT/s, 16.5M Cache, Turbo, HT (85) DDR4-2400	
	1 x iDRAC, Factory Generated Password	
	1 x iDRAC9, Enterprise	
	1 x Chassis with up to 12 x 3.5" HDDs on BP, 4 x 3.5" HDDs on MP and 2 x 3.5" HDDs Flexbay, 1 and 2 CPU Configuration	
	1 x 2U LCD Bezel	
	1 x Riser Config 2, 3x8 , 1x16 slots	
	4 x 16GB RDIMM, 3200MT/s, Dual Rank	
	9 x 8TB 7.2K RPM NLSAS 12Gbps 512e 3.5" Hot-Plug Hard Drive	
	2 x 600GB 10K RPM SAS 12Gbps 512e 2.5" Flex Bay Hard Drive, 3.5" HYB CARR	
	1 x PERC H730P RAID	
	2 x 1U Pipe Low Profile Heatsink	
	1 x 6 Performance Fan	
	1 x Dual, Hot-Plug, Redundant Power Supply (1+1), 750W	
	1 x Trusted Platform Module 2.0	
	1 x Quick Sync 2 (at the box management)	
	1 x Performance Optimized	
	2 x NEMA 5-15P to C13 Wall Plug, 10 feet (3m), 125V, 15AMP Power Cord North America	

	1 x Intel X550 Dual Port 10GbE Base-T & i350 Dual Port, 1 GbE Base-T, rNDC	
	1 x Windows Storage Servers 2016 Standard Edition	
	1 x ReadyRails Sliding Rails with Cable Management Arm	
	1 x RAID 6	
	1 x OpenManage Enterprise Advanced	
	1 x 5 Yr ProSupport Plus & Mission Critical(7x24) 4-hr Onsite Service	
	1 x 5 Yr ProSupport Plus & Mission Critical(7x24) Technical Support & Assistance	
	1 x 1-3 ProSupport Plus & Mission Critical(7x24) 4-hr Onsite Service	
	1 x 4-5 ProSupport Plus & Mission Critical(7x24) 4-hr Onsite Service	
9	24 port Network Switch (POE)	6
	10/100/1000 Base-T, POE+	24
	10/100/1000 SFP Ports	4
	Rackmount	19" 1U
	Total PoE Budget	185W
	PoE+ Capable Ports	1 to 24
	Switching Capacity	56 Gbps
	Forwarding Mode	Store-and-forward
	MAC Address Table	8k
	Packet Buffer Memory	512 KB
	Power Source	100 to 240 VAC (50/60Hz)
	Full Load Power Consumption	228.10 Watts
	VLANs	Max 4094 Static Groups, Voice VLAN
	Network Standards	IEEE 802.3 Ethernet IEEE 802.3i 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3x Full-Duplex Flow Control IEEE 802.3z Gigabit Ethernet 1000Base-SX/LX IEEE 802.3ad Link Aggregation (Trunking) IEEE 802.1D Spanning Tree Protocol (STP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) IEEE 802.1Q VLAN Tagging IEEE 802.1ab Link Layer Discovery Protocol (LLDP) IEEE 802.1p Quality of Service IEEE 802.1X RADIUS Access Control IEEE 802.3az Energy Efficient Ethernet
10	34" FHD LED Monitor	3
11	Uninterrupted Power Supply (UPS)	1

	Max Power (Watts)	4.5kWatts / 5kVA	
	Output Voltage Distortion	Less than 2%	
	Output Frequency	50/60 Hz +/- 3 Sync to mains	
	Other Output Voltages	220, 240	
	Input frequency	40-70 Hz Auto-sensing	
	Input voltage range for main operation	100-275 Adjustable	
	Other Input Voltages	220, 240	
	Battery Type	Lead-acid Battery	
	Included Battery Modules	2	
	Typical recharge time	1.5hr	
	Nominal Battery Voltage	192 V	
	Interface Port(s)	RJ-45 10/100 Base-T, RJ-45 Serial, Smart-Slot, USB	
	Control Panel	Multifunction LCD status and control console	
	Audible Alarm	Audible and visible alarms prioritized by severity	
	Emergency Power Off (EPO)	Yes	
	Surge energy rating	At least 480Joules	
	Max Height	44cm	
	Max width	13cm	
	Max Depth	72cm	
	Features		
		Hot-swappable batteries	
		Intelligent battery Management	
		Automatic internal bypass	
		Temperature-compensated battery charging	
		Automatic restart of loads after UPS shutdown	
		Plug-and-Play external batteries	
	Protection		
		Resettable circuit breaker	
		Power Conditioning	
		Generator Compatible	
		Frequency and Voltage Regulation	
		Cold-start capable	

Warranty

One (1) year on workmanship
 1 year on CCTV equipment.
 Server, Storage, workstation and UPS have five (5) years.

Summary

Description	Qty	Unit	Amount (PhP)
CCTV System	1	Lot	11,166,000.00
Indoor Dome CCTV Camera	21	pcs	
Outdoor Bullet CCTV Camera	30	pcs	
Mini Dome CCTV Camera for elevators	2	pcs	
Outdoor Bullet CCTV Camera with License Plate Registration (LPR)	2	pcs	
Central Video Management Software	1	pcs	
Central Video Management Server	1	pcs	
Workstation	1	pcs	
CCTV Storage	1	pcs	
24 port Network Switch (Power Over Ethernet – [POE])	6	pcs	
34" Monitor	3	pcs	
Uninterrupted Power Supply (UPS)	1	pcs	
Grand Total Amount (PhP)			11,166,000.00

Project Cost:

Total budget Php 11,166,000.00 inclusive of VAT chargeable against ITD 2020 funds.

Mode of Payment: Government Procedure

Delivery: The project must be completed within thirty (30) calendar days including delivery of equipment upon receipt of notice to proceed.

Project Officer:

Mr. Paul Brian Lao
 OIC
 IT Division
 Department of Tourism - OTDPRIM
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