

SUMMARY OF QUOTATION

Tajuk / Title **TO SUPPLY, INSTALL, TEST AND COMMISSIONING OF CCTV SYSTEM UPGRADE FOR UBD CENTRAL STORE, UNIVERSITI BRUNEI DARUSSALAM**
 Bil. Sebutharga **UBD/Q/150/2026 - [G]**
 Quotation No.

Bil. No.	Keterangan / Description	Unit Unit	Kadar Rate	Kuantiti Quantity	Jumlah /Amount (\$)(€)
A	<u>Scope of Work:</u> <i>Supply all necessary manpower, tools, equipment, access equipment, consumables and accessories required to complete the installation, hacking, configuration, testing and commissioning of the CCTV camera system. All works shall be carried out in accordance with the approved drawings, specifications, manufacturer's recommendations and instruction issued by S.O. To ensure that all installed CCTV cameras are properly mounted, aligned, connected to the network/NVR, configured, tested and commissioned. Refer to Attachment 'D' for existing CCTV system layout.</i>				
B	<u>CCTV Camera Installation</u> 1 Site Preparation 1.1 To verify the approved CCTV camera locations as per S.O. 1.2 To confirm the camera type, model, resolution and mounting arrangement for 1.3 To confirm the availability of the required network connection, power supply 1.4 To inspect the installation area for obstructions, structural elements, existing 1.5 To mark the exact camera mounting position and cable entry/exit points. 1.6 To protect existing finishes, equipment and building services during the 2 Camera Mounting 2.1 Install the appropriate mounting bracket, pole mount, ceiling mount or wall 2.2 Ensure mounting brackets are securely fixed and suitable for the weight of the 2.3 Install the camera at the approved height and orientation. 2.4 Ensure the camera is level, properly aligned and securely fastened. 2.5 Adjust the camera field of view to cover the designated surveillance area. 2.6 Ensure the camera does not have unnecessary obstruction or blind spots. 2.7 For PTZ cameras, ensure the full pan, tilt and zoom movement is unobstructed. 3 Cable Installation 3.1 Installed the specified network cable from the camera location to the 3.2 Route cables neatly through approved containment, conduit, trunking or 3.3 Avoid sharp bends, excessive pulling tension and mechanical damage to 3.4 Maintain appropriate separation from power cables where required. 3.5 Label both ends of every CCTV network cable. 3.6 Terminate the network cable using the approved connector/termination 3.7 Test the cable for continuity and correct termination. 3.8 Provide sufficient cable slack at the camera and equipment termination 4 Hacking Works 4.1 Mark the approved hacking location before commencement. 4.2 Verify that no concealed electrical, water, fire protection, structural or other 4.3 Use suitable tools and methods to minimise damage to the surrounding 4.4 Provide dust and debris protection during hacking works. 4.5 Keep hacking dimensions to the minimum required for cable installation. 4.6 Remove all debris generated from the hacking works appropriately. 4.7 Make good all hacked areas after cable installation using suitable materials. 4.8 Restore the surface to an acceptable finished condition matching the 5 Core Drilling/Penetration 5.1 Where core drilling or penetration through walls, ceilings or other building 5.2 Confirm the drilling location and diameter. 5.3 Verify that no concealed services are affected. 5.4 Provide suitable protection to adjacent finishes and equipment. 5.5 Seal the complete penetration appropriately. 5.6 Where fire-rated walls or floors are penetrated, reinstate the fire rating using an 5.7 Ensure the completed penetration is neat, secure and watertight where 6 Connection to Network/NVR 6.1 After physical installation of each camera, the Contractor shall connect the 7 Network Connection.				

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7.1	Connect the camera network cable to the designated network switch/POE				
7.2	Verify that the camera receives the required power supply/POE.				
7.3	Confirm that the camera powers up correctly.				
7.4	Check the network link status.				
7.5	Assign/configure the camera IP address in accordance with the approved				
7.6	Configure the required subnet mask, gateway and other network parameters.				
7.7	Confirm that there is communication between the camera and NVR.				
8	NVR Configuration				
8.1	Add the camera to the NVR.				
8.2	Configure the correct camera channel.				
8.3	Verify camera identification and channel numbering.				
8.4	Configure the required recording resolution.				
8.5	Configure the required frame rate.				
8.6	Configure the required compression/encoding settings.				
8.7	Configure continuous recording and/or event recording as specified.				
8.8	Configure motion detection or other required analytics where applicable.				
8.9	Configure date and time synchronisation.				
8.10	Configure the appropriate camera name/location.				
8.11	Confirm that live video is displayed correctly on the NVR.				
8.12	Confirm that recorded video is being stored correctly.				
9	Camera Configuration				
9.1	For each camera, the Contractor shall configure the camera in accordance				
10	Fixed Network Cameras				
10.1	Set camera IP address.				
10.2	Set camera name/location.				
10.3	Configure image resolution.				
10.4	Configure frame rate.				
10.5	Configure bitrate/compression.				
10.6	Configure day/night operation.				
10.7	Adjust brightness, contrast and image parameters where required.				
10.8	Configure WDR/backlight settings where applicable.				
10.9	Configure motion detection /analytics where specified.				
10.10	Adjust the lens and field of view.				
10.11	Confirm correct image orientation.				
11	PTZ Camera				
11.1	Configure the camera IP address.				
11.2	Configure pan and tilt limits where required.				
11.3	Configure zoom operation.				
11.4	Configure preset positions.				
11.5	Configure patrol/cruise functions where specified.				
11.6	Configure auto-focus and other required functions.				
11.7	Test full pan, tilt and zoom operation.				
11.8	Verify that PTZ control can be operated through the NVR/client software.				
12	Panoramic/Multi-Sensor Camera				
12.1	Configure the camera IP address.				
12.2	Configure each sensor/channel as applicable.				
12.3	Configure the required resolution and frame rate.				
12.4	Configure the panoramic view and image stitching where applicable.				
12.5	Adjust the camera orientation and coverage.				
12.6	Verify the required surveillance area is fully covered.				
12.7	Confirm that all sensor views are displayed and recorded correctly by the NVR.				
C	Testing				
1	Testing shall be carried out after installation and configuration of each CCTV				
2	Physical Inspection				
2.1	Camera securely mounted.				
2.2	Mounting bracket securely fixed.				
2.3	Camera correctly aligned.				
2.4	Cable properly secured and protected.				
2.5	Cable labels installed.				
2.6	No visible damage to camera, cable or accessories.				
2.7	Hacked areas properly reinstated.				

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2.8	Cable penetrations properly sealed.				
2.9	Installation area cleaned.				
3	Network Test				
3.1	Verify camera power/POE status.				
3.2	Verify network link.				
3.3	Verify camera IP address.				
3.4	Verify communication between camera and NVR.				
3.5	Verify stable live video transmission.				
3.6	Verify no intermittend connection or video loss.				
4	Video Test				
4.1	Verify live video.				
4.2	Verify image clarity.				
4.3	Verify correct image orientation.				
4.4	Verify field of view.				
4.5	Verify day/night operation.				
4.6	Verify IR illumination where applicable.				
4.7	Verify WDR/backlight performance where applicable.				
4.8	Verify motion detection/analytics where specified.				
5	Recording Test				
5.1	Confirm camera is recording to the NVR.				
5.2	Confirm continuos/event recording as specified.				
5.3	Verify playback of recorded footage.				
5.4	Verify correct date and time on recorded footage.				
5.5	Verify recorded image quality.				
5.6	Verify recording remains available after camera/network reconnection.				
6	PTZ Test				
6.1	Test pan movement.				
6.2	Test tilt movement.				
6.3	Test zoom function.				
6.4	Test focus function.				
6.5	Test preset positions.				
6.6	Test patrol/cruise function where applicable.				
6.7	Verify PTZ operation from the NVR/client workstation.				
D	Commissioning				
1	<i>Upon completion of installation and testing, the Contractor shall carry out</i>				
1.1	Confirm all CCTV cameras are connected to the NVR.				
1.2	Confirm all cameras are correctly identified and labelled.				
1.3	Confirm all cameras are displaying live video.				
1.4	Confirm all cameras are recording.				
1.5	Confirm recorded footage can be retrieved and played back.				
1.6	Confirm all required camera functions operate correctly.				
1.7	Confirm PTZ functions where applicable.				
1.8	Confirm panoramic/multi-sensor functions where applicable.				
1.9	Confirm date and time synchronisation.				
1.10	Confirm network communication is stable.				
1.11	Confirm NVR storage and recording status.				
1.12	Confirm no camera is reporting a fault or communication error.				
1.13	Carry out a final visual inspection of all camera installations.				
1.14	Clean all cameras, lenses, brackets and surrounding areas.				
1.15	Remove all temporary protection, debris and installation materials.				
E	Final Acceptance				
1	<i>The CCTV installation shall only be considered complete when:</i>				
1.1	All cameras have been physically installed and securely mounted.				
1.2	All required hacking and cable installation works have been completed and				
1.3	All cameras have been connected to the CCTV network and NVR.				
1.4	All cameras have been configured in accordance with the approved				
1.5	All cameras have successfully passed testing.				
1.6	Recording and playback have been verified.				
1.7	PTZ/panoramic/multi-sensor functions have been verified where applicable.				
1.8	All defects identified during testing have been rectified.				
1.9	The CCTV system has successfully completed final commissioning.				

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1.10	The Contractor has submitted the required test and commissioning records.				
F	<u>Contractor Documentation</u>				
1	<i>The Contractor shall submit the following upon completion:</i>				
1.1	CCTV camera location schedule.				
1.2	Camera identification/channel schedule.				
1.3	Camera IP address schedule.				
1.4	Network/cable identification schedule.				
1.5	Camera configuration records.				
1.6	NVR configuration records.				
1.7	CCTV testing and commissioning checklist.				
1.8	Test results.				
1.9	Final camera alignment/field of view confirmation.				
1.10	As built drawings showing camera locations and cable routes.				
1.11	NVR/network topology diagram.				
1.12	Equipment datasheets/manuals.				
1.13	Warranty documentation.				
1.14	Any password/credentials required for system administration, transferred				
1.15	Final defect list and confirmation of rectification.				
G	<i>The Contractor shall supply the following items for the upgrading of the CCTV system of UBD Central Store as follows:</i>				
1.1	16 MP Dual Lens Panoramic View CCTV camera	nos		1	
1.2	5 MP Bullet Type, CCTV Network camera	nos		1	
1.3	5 MP Dome Type, CCTV Network camera	nos		14	
1.4	2 Port POE Switch + 2 Fibre Port (SFP)	nos		3	
1.5	16 Channel NVR inclusive of HDD (Capable of 30 Days Video Recording	nos		1	
1.6	Outdoor IP54 CCTV Panel Box	nos		3	
1.7	32A MCB	nos		3	
1.8	20A MCB	nos		3	
1.9	6 Core LC/Duplex ODF	nos		5	
1.10	Adapter Duplex LC/LC Female to Female	nos		3	
1.11	Pigtail Simplex LC/UPC 1 Meter	nos		5	
1.12	16 Port POE Switch + Fibre Port	nos		1	
1.13	8 Port POE Switch + Fibre Port	nos		2	
1.14	6 Core Hybrid fibre cable, Power Cable & HDPE Piping	m		250	
1.15	CAT6 & Piping	m		270	
1.16	10 Meter Pole with cement plinths	nos		2	
1.17	To provide hacking services and make good to all surfaces as per existing.	m		10	
TOTAL AMOUNT					

Validity Offer : **6 (six) months (from the date of quotation)**

Liquidated and Ascertained Damages (LAD): 25/day

Contract / Address:

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(Official Stamp / Signature)
Tel. (off)
H/phone
Fax. No
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**** Class : I and above**

**** Category: E01, E02 & P05**

LAYOUT OF PROPOSED CCTV SYSTEM UPGRADE FOR UBD CENTRAL STORE, UNIVERSITI BRUNEI DARUSSALAM

