### ARAB REPUBLIC OF EGYPT SUEZ CANAL AUTHORITY

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## جمهورية مصر العربية هشة قناة السويس

د م/هشام (امیرة) Dept: Telephone : 064 /3396222 - 3396333 - 3397222 Ismailia

Fax.: 002 / 064 /3914784 / 3914785 Email.: info@suezcanal.gov.eg

الدرة المركات مربلاكرونه e.ec/65c4

تليفون: ٢٣٩٦٢٢٢ -٣٣٩٦٢٣٣ - ٢٢٧٧٣٣١/١٥٠ الإسماعيلية

فاكس: ١٨٧٤ ١٩٦ - ٥٨٧١ ١٩٦ / ١٢٠٠

info@suezcanal.gov.eg بريد الكثروني

إشارة كتابية

- إدارة التموين

إدارة التحركات إلى

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بالإحالة إلى موافقة السيد الفريق/ رئيس الهيئة على مذكرة وارد رئاسة رقم ٢٩٨ بتاريخ ٥/٠١٢/١٠/٥ على توصيات إجتماع اللجنة الدائمة لبحث أنسب أساليب تأمين مواقع الهيئة (بند رقم ٨ من التوصيات) والذي يخص تأمين المعديات التابعة لإدارة الكراكات في نطاق الإسماعيلية وعددها/ ١٧ معدية.

مرسل إلى سيادتكم المواصفات الفنية لمنظومة تأمين المعديات التابعة لإدارة الكراكات في نطاق الاسماعيلية.

علماً بأن الجهة الطالبة لتأمين هذه المعديات هي إدارة الكراكات.

وشڪرا،،،

مدس إدارة التحرج

قسم المراقبة الإلكترونية		
بتاريخ :12-10-2022	صادر رقم : 821	
المراكز والكاميرات	المراكز والكاميرات	
الملاحية ببورسعيد	الملاحية بالاسماعيلية	
المراكز والكاميرات	الرادارات-مراقبة	
الملاحية ببورتوفيق	الكترونية	
المكتب الفنى - مراقبة	التوقيتات والأرصاد -	
الكترونية	مراقبة إلكترونية	
الامن الصناعي - مراقبة	تطوير البرامج - مراقبة	
إلكترونية	الكترونية	
السكرتارية - مراقبة	صيانة الحاسبات - مراقبة	
الكترونية	الكترونية	
الدفراد - مراقبة إلكترونية	القوي - مراقبة إلكترونية	
التامين الأرضي - مراقبة	المتابعة - مراقبة	
الكترونية	الكترونية	

- \_ صورة للسيد اللواء/ مستشار السيد الفريق رئيس الهيئة للأمن
  - \_ صورة لادارة الكراكات
    - \_ صورة لقسم الامن



# Ferry boat Surveillance Project



# Ferry boat surveillance system Specification

### Introduction:

Within the strategic plan of Suez Canal Authority to secure its vital properties, Ferry boats are top priorities to be secured.

- Ferry boat Located in Ismailia area and over the Suez Canal.
- The ferry boat will link the east of Ismailia to its west and also to its Industrial district
- This project aims to give us full sight on the ferry boat using a fully managed surveillance system.
- Ismailia city has 17 ferry boats.
- Each ferry boat has its own surveillance system (1 NVR -1 Monitor 4 cameras 1 UPS- 1 Rack- Passive Components)

#### N.B.:

The bidder's technical offer should be submitted after a full survey for the ferry boat and any operational requirements for that harsh environment should be included in the offer, technical offer evaluation will depend on that.

Project's Objectives (Turnkey project camera system):

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- Secure and monitor the ferry boat.
- The bidder is responsible for the integration of all the project elements and fulfilling all the objectives stated in this tender.
- All System components should pass the tests as mentioned in the standard Certificates of these tests should be submitted.
- All the equipment and software delivered by the supplier should be licensed and warranted to work in a good condition and function according to the specifications for a period of two years starting from a successful end of the reliability test for two months.
- If any part or unit was damaged, deteriorated or found defective as a consequence of unsuitable material, faulty design, bad manufacture or inadequate workman shop during the guarantee period, it should be properly repaired or replaced by the supplier for free.
- Bidder must provide a complete set of manuals including installation, user manuals for each proposed item.
- All technical specifications mentioned here under must be considered as minimum requirements and not limited to these specifications.
- All the parts used in the outdoors should comply with the standard rated outdoor specs.
- The bidder is responsible for Configurations and settings of all system components (cameras, NVR, VMS,) will be done by Bidder
- The bidder is responsible for System installations for all hardware components will be done by Bidder (Cameras, Screens, Passive network, UPS, Rack)
- Bidders should submit their references in Egypt and qualifications for execution of similar projects.
- All software and Operating systems should be the latest versions taking into consideration that SCA has some software agreements and own some licenses that could affect the prices of the licenses.
- All equipment should be able to operate in harsh environments and its components must withstand the ferry boat vibration.

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- AGAIN, the bidder is responsible for the integration of all the project elements and fulfilling all the objectives stated taking into consideration that the project is a turnkey project and any requirements to accomplish these objectives and not stated in the company requirement list from SCA side will be the responsibility of the bidders to deliver it (i.e., The bidder should add any additional equipment necessary to fulfill the design and functions).

### The System consists of:

- Open architecture system compatible with most famous camera vendors and ONVIF support.
- 2. IP network.
- 3. Simultaneous recording, playback, live view, operation and remote access at same time without any adverse effect on any of the functions.
- 4. The system should provide high quality video for video surveillance with no frame losses, or mosaic, with minimum latency.
- 5. Ismailia area has 17 ferry boats.
- 6. Each ferry boat has its own surveillance system (1 NVR -1 Monitor 4 cameras 1 UPS- 1 Rack- Passive Components)

**Project Items and Specifications** 

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Fixed outdoor Camera	<ul> <li>Marine-grade stainless steel casing</li> <li>Progressive scan RGB CMOS 1/1.8"</li> <li>3.9 ~ 9.4mm motorized varifocal lens</li> <li>Color: 0.12 lux, B/W: 0.02 lux,0 lux with IR illumination on.</li> <li>H.264</li> <li>WDR: 120dB.</li> <li>IP 6k9k, and IK10+</li> <li>Resolution 2560x1920</li> <li>Multiple, individually configurable streams in H.264 and Motion JPEG.</li> <li>IR range 40m</li> <li>Supported network protocols specially IPv4, IPv6, HTTP, HTTP/2, HTTPS, SSL/TLSa, FTP, SFTP, TCP, UDP, ARP</li> <li>Operating temperature up to 55°C, Humidity less than 90%</li> <li>(PoE) IEEE 802.3af</li> <li>RJ45 10BASE-T/100BASE-TX PoE</li> <li>Support for microSD/microSDHC/microSDXC card</li> <li>Remote zoom, remote focus, pixel counter, leveling assistant, autorotation, straighten image</li> <li>Automatically removable infrared-cut filter</li> <li>ONVIF Conformant Profile G/S for live stream and recording.</li> </ul>
Monitors	<ul> <li>LED 43" for display cameras to display any required action.</li> <li>UHD 4K</li> <li>DP/HDMI (any other ports to accomplish the function is mandatory)</li> <li>Very narrow bezels</li> <li>24/7 heavy duty</li> <li>The bidder should supply all the accessories and equipment required to drive the monitors.</li> </ul>
UPS	<ul> <li>Rack mounted</li> <li>1KVA marine grade.</li> <li>UPS will be installed on hot/standby mode.</li> <li>True on- line double conversion UPS (rectifier to isolate input from output)</li> <li>Power factor: at least 0.7.</li> <li>Input Voltage: 1- phase + Neutral, 220 V +15%</li> <li>Input Frequency: 50 Hz + 10 %</li> <li>Output Voltage: 1- phase + Neutral</li> <li>Output voltage: (220V-230-240) +1%, selective</li> <li>Output frequency: 50 Hz + 0.1%</li> </ul>

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NVR	<ul> <li>Up to 8 channels @8MP Each</li> <li>100 Mbps Recording bandwidth</li> <li>Supports H.265/H.264</li> <li>Max 2 HDDs (Max. 12TB)</li> </ul>
	<ul> <li>Top fan unit</li> <li>Open able and lockable front cover</li> <li>Rack mounted power strips (PDU) with at least six outlets each 220v</li> </ul>
Rack	<ul> <li>suitable internal usage capacity with 40% capacity free in rack</li> <li>It protects enclosed equipment from wet or humid conditions</li> <li>The door can be modified to be opened from left or right when requested. Easily removable steel hinges with springs are highly resistant against corrosion.</li> <li>All Equipment housed using a brand water proof housing (IP66) and protect from weather conditions</li> <li>Dust proof gates for cable entry</li> </ul>
	<ul> <li>Output waveform: pure sine wave</li> <li>Transfer time from mains to Battery operation about 1 m.sec, Transfer time of by-pass less than 2 m.sec</li> <li>Overload capability: 125 % for 5 minutes, 150 % for 1 minutes</li> <li>Battery: Sealed Lead Acid Battery (SLAB)</li> <li>LED display with load and battery bar-graphs and on line: replace battery: overload and bypass indicators</li> <li>IP20</li> <li>High availability, ruggedized power protection for shipboard and other transportation applications.</li> <li>Automatic self- test: periodic battery self- test ensures early detection of a battery that needs to be replaced.</li> <li>back- up time at full-load: 30 min</li> <li>Ambient temperature: 0-40 C°</li> <li>By- pass mode: Type of by- pass is static (electronic) including protection from unstable voltage.</li> <li>Audible alarm during battery operation with reset button</li> <li>Digital front panel display: The digital display is to setup and monitor the UPS status (indicate voltage, Battery state conditions, Normal operating mode and by- pass modeetc.)</li> </ul>

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	<ul> <li>8 PoE/PoE+ ports</li> <li>Support ONVIF for live stream and recording</li> <li>Sufficient storage size for all camera recordings for minimum period of 15 days with additional 20% of free disk space recording full resolution at 25 fps</li> <li>ONVIF compatibility</li> <li>Mouse and keyboard</li> <li>All software needed and licenses for the operation must be included in the offer upon bidder design.</li> <li>Any accessories or equipment needed to accomplish the job is responsibility of the bidder.</li> </ul>
Passins	
Passive	<ul> <li>Ethernet &amp; patch cord: recommended Commscope, Schneider, Nexans and Panduit or any class A cable that can stand the harsh environment, bending, high tension, salt water, high temperature and high humidity.</li> <li>Network cables will be installed in stainless steel tubes</li> <li>The bidder will provide us with samples of Cable tubes to be tested.</li> <li>Shielded foiled twisted pair (SFTP) CAT6 Ethernet cable</li> <li>Ethernet Patch Panel will be mounted in equipment racks with sufficient modular jacks to accommodate the installed cable plant plus 10 percent spare</li> <li>Cat 6 UTP Patch Cord is constructed of 24 AWG, unshielded, twisted pair</li> <li>Labeling cables from both ends</li> </ul>
Power	<ul> <li>All equipment in the control room should have UPS power supply, equipment power supply from UPS is the responsibility of Bidder.</li> <li>SCA will be responsible for providing single phase power supply cable for UPS location and the bidder will provide circuit breaker and all the equipment that accomplish our requirements.</li> </ul>

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Total BOQ:

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Item	Item Description	Brand / Origin	QTY
1	Outdoor cameras	Korea-EU-US-Japan	68
2	Monitors	Samsung/LG	17
3	UPS	US / EU / Japan	17
4	Installation Materials	Class A	TBD
5	Rack	Rittal®, Panduit®, APC/ Schneider®, CommScope®	17
6	Total Passive component	Nexans, Panduit®, APC/ Schneider®, CommScope®	Listed below
7	NVR	Korea-EU-US-Japan	17
8	Camera mast/Arm (optional if needed)	Class A	TBD

	Total Passive Components	QTY
1	Outdoor Cable, S/FTP (shielded), LSZH,23AWG Solid Copper, Smoke Zero Halogen or Flame, Conductor Material: Bare copper, UV resistant for outdoor	17 ROLL 305M
2	Outdoor Back box+ Face plate+ CAT 6A modules [ if needed]	TDD
3	Patch Panel UTP -24 Port Fully loaded and cable organizer	TBD
4	Patch Cord 1M / 3m	17
5	Ducts + Flexible, Pipe and Cable tray	68/68 LS



The previous quantities are the minimum and the bidder must put the required number of equipment and materials in his offer to achieve the target of the surveillance system project.

- The Bidder should design the network to achieve the goals with the minimum quantity of equipment and materials.
- All the previous must be taken in consideration.
- All Passive network components should be from the same vendor.
- All outdoor cables should bear harsh environments, bending, salt water, high temperature and high humidity.
- The bidder must provide compliance sheet.
- The bidder must provide calculation sheet for storage.
- The offer should include the system design with all of the system Components (Active and Passive).
- The bidder must provide the certificate of origin from the vendor of equipment.
- The security solution should be approved by vendor.
- The vendor should have certified maintenance center in Egypt.

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