



**CALL OF TENDER**  
**FOR THE AWARD OF PROCUREMENT OF**  
**PPA INTEGRATED DIGITAL MANAGEMENT**  
**PLATFORM**

**Piraeus, Greece**

**April 2021**

**A. CONTENTS**

Definitions..... 3

**ARTICLE 1. INTRODUCTION** ..... 5

1.1 Preamble..... 5

1.2 The Piraeus Port Authority S.A. (PPA) ..... 5

**ARTICLE 2. CONTRACTING AUTHORITY – SCOPE OF TENDER** ..... 6

The Contracting Authority ..... 6

**ARTICLE 3. TENDER PROCEDURE – TENDER DOCUMENTS** ..... 8

**ARTICLE 4: TENDER DOCUMENTS**..... 8

**ARTICLE 5. PREQUALIFICATION CRITERIA AND PREQUALIFICATION DOCUMENTS** 8

**Article 6: Letters of Guarantee** ..... 12

**ARTICLE 7: FINANCIAL SPECIFICATIONS** ..... 14

**ARTICLE 8. TERMS AND CONDITIONS** ..... 15

8.1 LEGAL FRAMEWORK: ..... 15

8.2 LANGUAGE OF THE PROCEDURE..... 15

8.3 TAXES, CUSTOMS DUTIES, ETC. - PAYMENT OF THE CONTRACTOR..... 16

8.4 PRESUMPTION RESULTING FROM THE PARTICIPATION IN THE PROCEDURE..... 16

8.5 SUBMISSION METHOD..... 16

8.6 VALIDITY OF OFFERS ..... 18

8.7 TRUE AND CORRECT STATEMENTS ..... 19

**ARTICLE 9 ASSESSMENT OF PROPOSALS** ..... 20

9.1 Evaluation Process..... 20

APPENDIXES..... 25

APPENDIX A: ..... 25

APPENDIX B Non-Disclosure Agreement..... 25

APPENDIX C..... 27

**TECHNICAL SPECIFICATIONS/ REQUIREMENT’S TABLES** ..... 27

APPENDIX D: GDPR Statement..... 52

Appendix E: Participation Bond..... 53

APPENDIX F..... 55

\*\*\* Implementation Services must include: Design – Configuration (Cameras Settings, AI settings)– Migration of the existing System – Commissioning-Warranty - Consulting. .... 55

A/A ..... 56

A/A ..... 56

Appendix G: Advance Payment Letter of Guarantee ..... 58

Appendix H: Performance Bond..... 59

## DEFINITIONS

- 1.1 **"Contractor"** means the undertaking / Consortium / Joint Venture to be selected by PPA SA for the purpose of being awarded the service agreement, by virtue of a contract to be executed and signed to that effect.
- 1.2 **"Eligible Institution"** means a credit or financial institution or insurance company, within the meaning of Article 14(1)(b) and (c) of Law 4364/2016, operating legitimately in any Member State of the EU, the EEA, the OECD or the Financial Action Task Force (FATF), which has a legitimate right in this regard under the applicable laws, or a credit / financial institution or insurance company operating legitimately in a country with a credit rating for long-term investments of A- (or equivalent) or higher from at least two of the rating's agencies Moody's, Standard & Poor's or Fitch.
- 1.3 **"Client"** means PPA SA
- 1.4 **"Decision-making Body"** means the PPA SA body competent from time to time.
- 1.5 **"Tender"** means this tender procedure, which will be carried out in a single phase.
- 1.6 **"Tender Offer"**: Any Tender Offer to be submitted by a Tenderer in the context of this Tender, comprising three sub-dossiers: The Participation Documents, the Expertise and Experience Documentation and the Financial Offer.
- 1.7 **"Tenderer", "Candidate" or "Offeror"** means any Undertaking / Consortium / Joint Venture which participates in the Tender and files a Tender Offer.
- 1.8 **"Performance Letter of Guarantee"**: as defined in Article 11 hereof.
- 1.9 **"Participation Letter of Guarantee"**: as described in Article 11 hereof.
- 1.10 **"Interested Party"** means any Undertaking / Consortium / Joint Venture intending to participate in this Tender.
- 1.11 **"Tender Committee" or "Committee"** means the PPA Tender Evaluation Committee established by Decision no. 1134/09.11.2017 of the PPA CEO.
- 1.12 **"Call for Tenders"** means the present document.
- 1.13 **"Contract"** means the Service Agreement to be signed with the Contractor.
- 1.14 **"Concession Agreement"** means Amendment and Codification dated 24.6.2016 of the Concession Agreement of 13.2.2002 between the Hellenic Republic and Piraeus Port Authority S.A., which was ratified by Law 4404/2016.
- 1.15 **"Solemn Declaration"**: A Solemn Declaration as per Law 1599/1986 or, if the candidate is established abroad, a declaration of equal probative value executed as per the laws of the candidate's country of origin. If the candidate is a legal person, such declaration shall

be signed by its legal representative or another person specifically authorised to that effect (in which case, a validated copy of the written authorisation must be also presented).

- 1.16 **“Proof of Concept”** has the meaning of a scaled down version of the offered «Port Digitalization Management System Solution» which represents an approximation of the characteristics of the final product, prior to the selection of the Contractor and the implementation of the Project.

## **ARTICLE 1. INTRODUCTION**

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### **1.1 Preamble**

The Port of Piraeus (Port of Piraeus) is the largest port in Greece, spanning a coastline length of more than twenty-four kilometres and expanding over an aggregate area exceeding five million square meters. The geographic location of the Port of Piraeus makes it a vital transportation, trade and supply, tourism and communications hub connecting the Greek islands with the mainland, as well as being an international centre of marine tourism and commercial carriage of goods. The position of the Port of Piraeus is conducive to its operation both as a port for the wider area of Greece and for the Balkans and Black Sea countries.

The Port of Piraeus is situated at the intersection of sea routes linking the Mediterranean with Northern Europe and its geographic position (south of the 38th parallel) enables major line ships to access it without significant deviation from the Far East trade routes. The Port of Piraeus hosts a complex and unique variety of activities, including: ferry/passenger shipping (it is the largest passenger port in Europe), servicing of all types of cargo, cruise, vessel repair activities, as well as the Port of Piraeus free zone (a control type I customs free zone) operating under applicable tax and customs legislation in the area (Piraeus Free Zone).

### **1.2 The Piraeus Port Authority S.A. (PPA)**

PPA is the legal entity entrusted with the administration and operation of the Port of Piraeus. It was established as a legal entity of public law by virtue of Law 4748/1930, which was restated by Compulsory Law 1559/1950 and ratified by Law 1630/1951, each as subsequently amended and supplemented. In 1999 PPA was transformed into a stock corporation (société anonyme).

In April 2016, following an open public tender process, the Hellenic Republic Asset Development Fund (HRADF), under its capacity as the major shareholder of PPA, and COSCO HK Ltd entered into a Shares Purchase Agreement for the acquisition of the majority participation in the share capital of PPA. In August 2016, PPA ceased to be a state-owned company and since that day it is a private-owned company, whose object is to perform its obligations, conduct its activities and exercise its faculties under or in respect of the concession agreement between Greek State and PPA, as ratified by Law 4404/2016.

## ARTICLE 2. CONTRACTING AUTHORITY – SCOPE OF TENDER

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### The Contracting Authority

The Contracting Authority is PPA.

The address to which the Offers are submitted is:

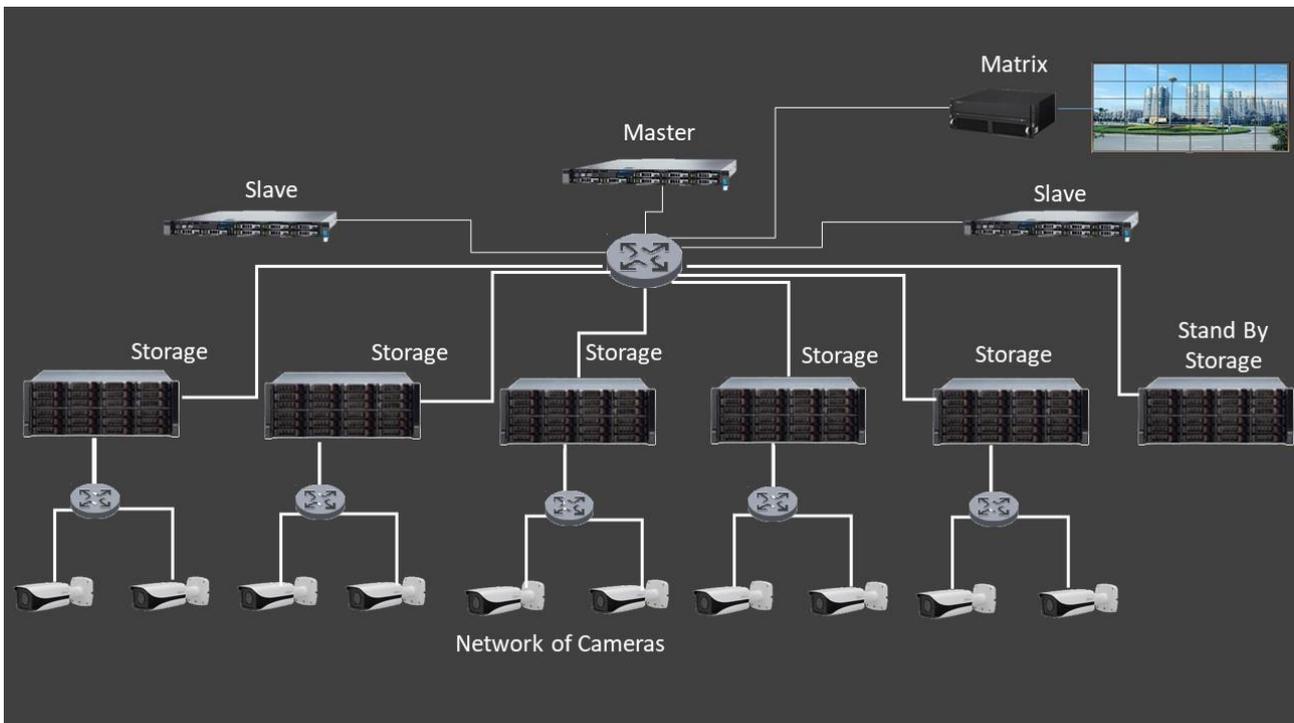
### **Piraeus Port Authority S.A.**

Procurement Department Secretariat (1st Floor, office No 212)

10, Akti Miaouli, 185 38 Piraeus, Greece.

### Scope of Tender

Piraeus Port Authority (hereafter named "Contracting Authority" or "PPA" or client) is seeking proposals from qualified Candidates, or legal entities, experienced in updating and deploying the CCTV infrastructure in whole port of Piraeus, by following the proposed architecture and based to the existing PPA VMS.



### **PROPOSED SYSTEM TOPOLOGY**

That architecture is based to a Centralized Storage and Management system, where the cameras among the Port facilities will be connected, through PPA network, to Video Storage devices. One Standby Storage will be used, for redundancy reasons, which will automatically replace a faulty one.

The existing VMS software will be installed in existing Virtual Servers, in distributed environment (Master – Slave). The existing cameras should be added to the existing VMS (if they are not already).

All the above equipment will be installed to Central Network Equipment of PPA Data Center.

The above solution should meet or exceeds the technical specifications listed in Appendix C of this document.

The current LAN infrastructure includes single or multi-mode fibre optic panels with LC and SC connectors that can be utilized for the purposes of this project. Additionally, the active access equipment currently in use, is capable of 1GB links and up to PoE+ (IEEE 802.3at). If additional network infrastructure is needed (civil works, racks, pillars with the appropriate electromechanically equipment and sensors, poles, patch panels, cabling, fibre optics and Ethernet terminations, switches, sfp modules, etc.), those will be provided by the contractor.

Detailed drawings of the PPA facilities will be available to potential candidates as per the provisions of article 3.

Any solution proposed must include all additional costs that shall be incurred in order to create a functional, secure and managed enterprise environment. These additional considerations must include planning, equipment acquisition, licensing, software, staging, configuration, patch cords, possible cabling and appropriate devices, installation, deployment and training services, vouchers, documentation updates, communication and coordination with other parties involved in the overall project. Any associated costs such as existing cameras upgrades/replacements, device installation costs, lifting equipment etc., must be clearly specified and explained in detail in the Candidate's financial proposal.

The candidates are requested to do a detailed site survey before submitting their offers, in order to understand the exact requirements.

The selected Contractor must be willing to work in a cooperative manner with PPA staff and other parties working on behalf of PPA.

## **ARTICLE 3. TENDER PROCEDURE – TENDER DOCUMENTS**

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3.1 The tender procedure is conducted in one (1) stage:

3.2 The Candidates will receive:

**1. Appendix A:**

- i. Network Topology maps
- ii. PPA facilities mapping
- iii. PPA current CCTV camera list
- iv. Initial requirement of CCTV cameras

following their written application/ request within ten (10) calendar days from the publication date of the tender and after submitting to PPA SA Signed Non- Disclosure Declaration according to Appendix B.

3.3 In case less than three candidate's offers fulfil tender criteria in order for their financial proposals to be unsealed, then, PPA reserves the right to cancel the procedure by declaring it as non-successful.

3.4 After the tender's cancellation, negotiation procedure can take place without having unsealed the initial submitted financial offers. In that case, the Company retains the right to negotiate with the participants who fulfil the minimum requirements of article 5, provided that they have submitted a valid Participation Letter of Guarantee. During negotiation procedure PPA will request from the above-mentioned candidates to submit in a sealed envelope (not through email) improved offer within three (3) working days without altering any of the technical/ quality/ specifications of the already submitted offers. In the case that the above mentioned "improved" financial offer is higher than the initial it will be rejected.

3.5 Due to the exceptionally tight timeframes for implementing the mandatory PPA investment program, specified in the Concession Agreement, decisions of the Project Owner are final and no protests or objections submitted in relation to them will be taken into account by PPA SA.

## **ARTICLE 4: TENDER DOCUMENTS**

4.1 The tender procedure shall be conducted in accordance with:

- i. Law 4404/2016 (Government Gazette 126/A/8.7.2016) and the Concession Agreement on use and exploitation of certain areas and assets within the Port of Piraeus of 24 June 2016 ratified by Article 1 of that Law, together with its annexes, which agreement was entered into between the Hellenic Republic and PPA, under which the Hellenic Republic granted PPA the exclusive right to hold, use, manage, maintain, improve and exploit the assets conceded to it, in accordance with the terms of the agreement and
- ii. The applicable PPA S.A. Contracts and Sub concessions regulations and
- iii. The procedures and terms outlined in the Tender Documents.

## **ARTICLE 5. PREQUALIFICATION CRITERIA AND PREQUALIFICATION DOCUMENTS**

### **5.1 Prequalification criteria**

Each Candidate which participates in the tender procedure on its own or as a member of a Joint Venture is obliged, upon penalty of disqualification for that tender procedure, to fulfil the following prequalification criteria.

### 5.1.1 Professional prequalification criteria (ON/OFF criteria)

Each Contracting Enterprise which participates in the tender procedure on its own or as a member of a Joint Venture is obliged, upon penalty of disqualification for that tender procedure, to have the following professional qualifications (The criteria of this paragraph should be also applicable for the subcontractors).

1. It must not be in a state of bankruptcy, liquidation or compulsory receivership and proceedings to have it declared in a state of bankruptcy, liquidation or compulsory receivership must not have been launched.
2. The managing partners in the case of a limited or general partnership or limited liability company, and the Chairman and Managing Director in the case of a Societe Anonyme or the natural persons exercising management functions in all other cases must not have been convicted on the basis of a final judgement for:
  - a) participation in criminal organisations within the meaning of Article 2 of Council Framework Decision 2008/841/JHA;
  - b) bribery within the meaning of Article 2(1) of Council Framework Decision 2003/568/JHA;
  - c) fraud within the meaning of Article 1 of the Convention to protect the financial interests of the European Communities;
  - d) terrorism or terrorism – related crimes as defined in Articles 1 & 3 of of Council Framework Decision 2002/475/JHA;
  - e) money laundering within the meaning of Article 1 of the Directive 2005/60/EC;
  - f) child labour and other offences concerning trafficking in human beings, as defined in Article 2 of the Directive 2011/36/EC;
  - g) embezzlement, fraud, extortion, forgery, perjury, bribery, fraudulent deliberate bankruptcy, according to the Greek legislation and the Greek Penal Code or crimes similar in their specific aspects to the above, provided for in foreign legal orders.
3. They must have fulfilled obligations relating to the payment of social security contributions in accordance with applicable Greek law (in the case of a Greek or foreigner engaged in activity in Greece) or in accordance with the law of country of establishment.
4. They must have fulfilled obligations relating to the payment of taxes in accordance with applicable Greek law (in the case of a Greek or foreigner engaged in activity in Greece) or in accordance with the law of country of establishment.
5. Candidates must be registered with one of professional or trade Registers in their Country of origin or relevant professional register worldwide with a scope of works relevant to IT Projects or Physical Security Installation Projects.

#### **Impotrant Note 1 for 5.1.1 Professional prequalification criteria (ON/OFF criteria):**

*In case of a Consortium, Joint Venture or Association of Undertakings, the abovementioned criteria must be met by each member.*

### 5.1.2 Financial and economic standing criteria (ON/OFF)

Upon penalty of disqualification, each candidate must meet the following financial criteria:

1. It must have an average annual turnover over € 5.000.000 the last 3 years (per year 2018, 2019,2020)

### 5.1.3 Technical skill criteria (ON/OFF)

Upon penalty of disqualification, each candidate must meet the following technical criteria:

1. Candidates Eligible to participate in the Tender are legal IT entities/companies or Security Companies.
2. At least three (3) years proven experience (by contract) at maintenance of CCTV system.

To have successfully implemented as contractor or as a member of a joint venture: a) at least two (2) CCTV projects with total contract amount over € 800.000 (all the contract amounts of proven experience will be added) during the last three (3) years (2018, 2019, 2020) and b) at least one (1) CCTV project over € 300.000 during the last three (3) years (2018, 2019, 2020). Project experience by subcontractor or manufacturer is not taken into account. Lending experience is not accepted. Where the tenderer carried out or is carrying out the above works as a member of a Joint Venture or grouping, it must prove that it successfully completed implementation or so far has completed works (in the case of projects under way) by itself 100%, or where those works are part of a larger project, it must prove that the budget corresponding to it (or which corresponds to the works carried out so far) was at least equal to the above limits

3. It must have valid ISO 9001:2015 , and a valid ISO 27001:2013
4. The project team should have at least 1 certified engineer in CCTV technology in the offered products.
5. The products must be purchased via manufacturer or official Distribution Channels within the country the products will be sold and installed.

### **Important Note for 5.1.2 and 5.1.3**

*In case of a Consortium, Joint Venture or Association of Undertakings, the above mentioned criteria must be cumulatively met (as a whole) by all members (in total).*

### 5.2 Prequalification Documents

In order to prove the fulfillment of the above mentioned prequalification criteria, the following prequalification documents must be submitted as originals or true copy of the original or simple easy and clear to read copies (a solemn declaration is required for declaring their validity<sup>1</sup>) which must be valid and in force throughout the whole tender procedure:

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<sup>1</sup> A Solemn Declaration of the legal representative of the candidates, by each one separately in case of joint ventures, that any certificate, or any other document included in the file of the prequalification documents, is a true copy of the original (or duly printed by the internet site of the Competent Authority issuing it) as well as that they are obliged to submit the original documents once they are awarded the Project.

1. A participation Bond according to the requirements of the present and Appendix E.
2. A brief description of the Candidate;
3. A copy of certificate of incorporation (or equivalent), issued within the last 12 months from the date of the Tender;
4. A copy of statutes/by laws (or equivalent);
5. Latest audited financial statement if applicable;
6. A manufacturer's authorization form within which it will be stated that the offered equipment will be supplied through the manufacturer's official supply network.
7. Official proof that the person signing the offer is legally binding the Candidate, in case the Offer is not signed by the person specifically authorised for this reason as per the below par. vii.
8. The Candidate's competent management body's decision to participate in the Tender, submit the offer and appointing its authorized representative to specifically sign and submit the Offer; the authorized representative must have delegated powers to answer on behalf of the candidate to any questions PPA may have, and to sign the agreement.
9. A binding declaration of the candidate:
  - a. stating that is fully aware of the contents of this call and unconditionally and unreservedly accepts its terms;
  - b. acknowledging that its participation in the process takes place at its sole risk and expense and that the participation as such does not establish any right to compensation from PPA or PPA's personnel;
  - c. acknowledging that disqualification from the Tender or failure to succeed in the Tender does not confer to the Candidate any right to compensation;
10. Full contact details for the Candidate and the Candidate's authorized representative (including full name, address, phone and fax numbers and email address);
11. The candidate will submit either a Binding Declaration confirming the following or the below documents, according to applicable law:
  - (a) Certificate of country of establishment stating that the Candidate is not bankrupt or is the subject of insolvency or winding up proceedings;
  - (b) Certificate of country of establishment stating that the Candidate is not under mandatory administration;
  - (c) Certificate of country of establishment stating that the Candidate is not under liquidation or administered by a liquidator;
  - (d) Certified copies of current tax and social insurance compliance certificate, or equal evidence in accordance with the law of place of the candidate's establishment.
12. A reference list regarding previous similar projects. This list shall contain among other things a brief description of each reference and information about the similar project. The number of installed cameras per project and the projects' contract amounts should be mentioned, within

- the reference list. The reference list must be accompanied by the relevant contracts, agreements, certificates of acceptance with which the above requirements will be traceable.
13. A solemn declaration from the candidate, that the products will be purchased via Authorized Distribution Channels within the country the products will be sold and installed.
  14. ISO 9001:2015 proof of certification.
  15. ISO 27001:2013 proof of certification.
  16. A certification from the Manufacturer that the candidate's engineer has been trained to the offered products.
  17. The participating companies or the subcontractor or one member of a Joint venture that will offer the installation services, must be licensed in compliance with the provisions of Art. 2 of Law 3707/2008 (Government Gazette A' 209) – "IEΠYA License". A copy of this license must be sent to PPA in order the NDA to be signed.

#### **Article 6: Letters of Guarantee**

- i. The guarantees required (a. participation, b. advance payment, c. good performance of the contract and d. proper maintenance (optional)) for this tender procedure may be in one of the following forms:
  - Letters of Guarantee in accordance to Appendixes E, G and H.
  - Deposit to PPA (one of the following PPA bank accounts) as a guarantee of the respective amount of money.

 ΕΘΝΙΚΗ ΤΡΑΠΕΖΑ	<b>GR1501101900000019050500651</b>
 ALPHA BANK	<b>GR7101401250125002320006462</b>
 Eurobank	<b>GR4902600250000440201113841</b>
ΤΡΑΠΕΖΑ ΠΕΙΡΑΙΩΣ 	<b>GR8501721140005114032172486</b>

- A counterbalance letter of guarantee with the participation of a second bank in the basic tripartite relationship of the letter of guarantee between the issuing bank and the recipient of the guarantee.
- ii. The bonds shall be addressed to PPA, and in the event of a Joint Venture or Grouping

must be common to all members hereof.

- iii. In case a Participant submits a Participation letter of Guarantee, the original copy shall be delivered in PPA's premises either via courier or in person at the following address (Akti Miaouli 10, 18538 Piraeus, office 209) to the attention of Procurement Department secretariat.
- iv. Errors or omissions in the title of the procurement or the participant in whose favour the bond is provided will not lead to disqualification provided no confusion is caused.
- v. The tender participation bond will amount ten thousand euros (10.000.00 €) with duration two (2) months longer than the validity of the offer including the possible two (2) months extensions of the offers' validity period upon PPA's sole Request.
- vi. The tender participation bond shall be forfeited by PPA if, while it is in effect, (a) the tenderer withdraws its tender or (b) the interim Contractor does not submit the award documentation within the respective deadline or does not proceed with the signing of the contract within the respective deadline or (c) the above persons provide false evidence or information relating to the grounds of qualification.
- vii. The participation bond will be returned:
  - a. to the Contractor when a good performance guarantee of amount of 10% of the contract (excluding VAT) is submitted and
  - b. to the unsuccessful Candidates within fifteen (15) working days from the completion of the Tender (contract signature is considered as tender completion).
- viii. Regarding the 30% advance payment on the total contractual value, the Contractor will submit to PPA an advance payment letter of guarantee of equal amount according to Appendix G
- ix. Upon contract signing, a good performance guarantee will be submitted amounting to 10% of the contractual value, not including VAT. The good performance guarantee concerns the performance of all of the contractor's obligations under the Contract. PPA SA will return the good performance letter of guarantee after:
  - a. the end of the three-year warranty period, and
  - b. The submission of the proper maintenance guarantee in case PPA SA decides to award the optional Maintenance services
  - c. PPA will hold the Good Performance Guarantee (corresponding to 10% of the contractual price) and return them to the Contractor after the elapse of six (6) months from acceptance by PPA of the PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM project, as guarantees for proper operation of the Project, in accordance with the contract terms and technical specifications agreed.
- x. A Proper Maintenance Guarantee will be submitted amounting to 10% of the contractual value, not including VAT. The Proper Maintenance Guarantee will start following the

activation of the optional Maintenance Services and will be valid for three years and then it will be returned to the Contractor. During this period, the terms and conditions of APPENDIX C hold.

The above guarantees will ensure the proper, flawless and timely implementation of the procurement and timely and proper performance of its obligations to the PPA.

## **ARTICLE 7: FINANCIAL SPECIFICATIONS**

Participants are requested to submit a financial proposal for providing the total Solution and services that are the subject-matter of this Call as described in the tender document according to the requirements of APPENDIX F.

Candidates should provide the following:

- a.** Price per man day per specialist level (excl. travel and accommodation expenses) for any additional services may be required in 3 years of warranty period and 3 years of maintenance period.
- b.** All proposed solutions must include all costs that would be incurred in order to create a functional and managed enterprise environment. Such cost considerations must include: licensing, implementation of a management platform, patch cords, possible cabling for connecting proposed devices to a network switch, etc. Any associated costs not included in the financial proposal such as upgrades/replacements, device installation costs, lifting equipment etc., must be clearly specified and explained in detail in the candidate's Financial response.
- c.** All equipment related to the "PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM" must be covered by insurance from the Contractor until the delivery of the entire solution to the client

### **Financial Terms and conditions**

- All prices should be in Euro, excluding VAT
- Prices should include the entire delivery to PPA premises and deployment as per project specifications
- Suggested Payment Terms:
  - ✓ 30% payment in advanced within ten days after contract signature
  - ✓ 40% after equipment received and a certificate of acceptance has been approved by PPA SA competent Decision making Body
  - ✓ 30% upon final acceptance. The relevant certificate of acceptance has to be approved by the competent Decision Making Body of PPA SA
- Final Acceptance Certificate (FAC) will be issued by PPA S.A. after 30 consecutive days of productive operation without any defect and/or issues.
- The financial proposal should be quoted on a "Fixed Price" base for all solution categories
- Delivery Terms: DDP for all project's equipment, hardware and materials.

- All prices quoted should be inclusive of any applicable withholding tax.
- It is at PPA's sole discretion to choose to purchase only parts of the total offered solution and the Contractor is obliged to accept without altering any of the individual item prices.

## **ARTICLE 8. TERMS AND CONDITIONS**

### **8.1 LEGAL FRAMEWORK:**

The tender procedure shall be conducted in accordance with:

- iv. Law 4404/2016 (Government' Gazette 126/A/8.7.2016) ratifying the Concession Agreement entered into between the Hellenic Republic and PPA, regarding the use and exploitation of certain areas and assets within the Port of Piraeus of 24 June 2016 (Art. 1), together with its annexes. In accordance with the terms and provisions of the above agreement, the Hellenic Republic grants PPA the exclusive right to possess, use, manage, maintain, improve and exploit the assets conceded therein. and
- v. The EU General Data Protection Regulation in force (EU 2016/679).
- vi. Law 4577/2018 on the enforcement of the EU Directive 2016/1148 concerning the security of network and information systems across the Union.
- vii. All relevant applicable Greek legislation.
- viii. PPA S.A.'s Regulation for the award of Works, Services and Procurement in force.
- ix. The provisions, terms and conditions outlined in the Tender Document.
- x. In addition to the above, the Tender Document with its attachments and other information on the basis of which the tender procedure is conducted for the selection of the Contractor for the project consist of the documents cited below. In case of a doubt or discrepancy among the content of their terms, the rank of validity of those documents is as stated below:
  - a. The Contract to be signed.
  - b. This Tender Invitation.
  - c. The Financial Proposal.
  - d. The Technical Proposal.

### **8.2 LANGUAGE OF THE PROCEDURE**

The official language of the Tender procedure will be English and/ or Greek and all information and documentation will be drafted in the English or Greek language and will be accompanied by a legal translation into one of the above languages.

Moreover, all written and verbal communication between the Candidates, Tender Evaluation Team and PPA shall also be in English and / or Greek.

### **8.3 TAXES, CUSTOMS DUTIES, ETC. - PAYMENT OF THE CONTRACTOR**

All overheads, Contractor benefit, etc. and taxes, duties, etc. must be included in the Financial proposal. VAT is payable by PPA SA.

### **8.4 PRESUMPTION RESULTING FROM THE PARTICIPATION IN THE PROCEDURE**

1. Submission of an offer in the tender procedure will constitute a presumption that each Candidate has been apprised of the Tender Invitation / Call and information and is fully aware of the Project's implementation conditions. In particular, candidates are obliged to fully apprise themselves of all Project implementation conditions including all those specified in this Article. Participation in this Tender by submitting an offer to this tender procedure it is well understood and accepted that the candidate:
  - i. Has checked all general and local conditions for the PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM project.
  - ii. Has also examined, understood and accepted the technical requirements, which will form the basis of their offer.
2. Any failure by the Candidate to acquire knowledge about all the above issues and requirements using all information possible, is at its own risk and exclusive responsibility and shall not exonerate its liability and obligation to comply in full with its contractual obligations.
3. In light of the above, Candidates must fully and unreservedly guarantee the accuracy of the PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM project financial proposal, while within the contract to be signed, **the Contractor must expressly waive its right to adjust its fee for any reason.** Moreover, by submitting their offer, Candidates unreservedly accept that if chosen as Contractor they will unreservedly undertake to carry out all work and in general to perform the project in full compliance with all terms, etc. and the project implementation schedule specified herein.
4. Candidates are not entitled to any remuneration for expenses incurred relating to the compilation and submission of their offer, etc.

### **8.5 SUBMISSION METHOD**

All documents and materials should be submitted in electronic format in CD or USB media included in one (1) sealed envelope/package.

The sealed envelope/package should contain:

- I. A separate sealed envelope/package including the **Technical proposal** with at least the following media: USB copies.

The Sub-folder of Technical proposal must include, on pain of rejection of the Offer, the following documents (original or duly certified copies, where applicable), as evidence of compliance with the requirements of this Call. In particular, the following must be included:

- a) An introduction-executive summary that contains the summary of the Offer of the Candidate, which should include the following:
- i. Site survey result and design of the proposed architecture (preferable to be designed on maps); summary description of the provided software, hardware and services;
  - ii. An analytical description of the Technical and Operational specifications, included in the References Column of the Compliance Tables;
  - iii. A brief description of the methodology to be followed during Project implementation;
  - iv. Summary of the Schedule and Phases of the Project that should include the services offered and deliverables per project phase
  - v. A brief description of the Project Team structure/staff and each participants involvement in project described in man-days and as percentage of the whole
  - vi. Fulfilled Compliance Tables from Appendix C, including Reference Column of the compliance table that it should describe in which parts of the candidate's documentation is covered PPA's requested features (e.g. tech spec no 25: in p.56 of the Technical description 1st vol)

- b) Detailed CVs of the Project Team without any personal data.

- II. A separate sealed envelope/package including the **financial proposal in hardcopy format, with the format as per Financial Table F.1-1 F.1-2, F1-3, F1-4, F1-5, F1-6** with at least the following media: USB copies.

- III. A separate sealed envelope/package including the **Prequalification Documents** in hardcopy format and in electronic media as mentioned below in a USB copy.

The files stored in USB media must be either in Microsoft "Word doc files" or Adobe pdf" format files for both the Technical and Financial Proposal.

All envelop/packages and USBs should be clearly marked with the indication "TECHNICAL PROPOSAL" or "FINANCIAL PROPOSAL" or "Prequalification Documents", as appropriate (note: lack of proper identification shall invalidate the Proposal).

The sealed Technical and Financial envelops/packages should be enclosed inside an outer envelope (which must also be sealed) marked as follows:

- With the words: **Procurement of "PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM"**

- With the words: Proposal by ... (name and address of the respective Candidate/ Participant).
- With the address of PPA:

Piraeus Port Authority S.A.

10 Akti Miaouli Str.

Piraeus

18538, Greece

**Attn.: Procurement Department**

Any financial information in the Technical Proposal shall invalidate the offer.

All Interested parties are required to submit their offers until 7<sup>th</sup> May 2021, 15:00 at PPA premises 10 Akti Miaouli str. 18538, Piraeus, Greece to the procurement department, secretariat office number 212/ first floor.

By tender publish date and during one week after all interested parties are able, by their request, to perform an onsite survey necessary for project's initial design.

PPA's maps with proposed camera positions will be provided to candidates upon request.

Interested parties can submit any questions / clarifications concerning the call for expressions of interest to one of the following email addresses: [cctvtender@olp.gr](mailto:cctvtender@olp.gr) and [procurement@olp.gr](mailto:procurement@olp.gr) requested in time they will be provided by PPA as soon as possible and no later than 3 working days before the last date for submitting offers.

If for any reason the aforementioned procedure is unable to go ahead on that date or if the procedure goes ahead but no offers are submitted, the tender procedure will be conducted on a new date to be specified by decision of the PPA, which will be posted on the Company's website.

## **8.6 VALIDITY OF OFFERS**

The Proposals, including the Financial Proposals of the Participants, shall be valid for a period of four (4) months from the submission deadline date.

Participants are advised that they may be asked to extend the validity of their proposals for additional months.

A Proposal shall only be deemed to be accepted when a notification of Acceptance is communicated to the Participant by email or facsimile transmission (by fax). The date of transmittal of the email or fax notifying acceptance shall be deemed to be the date of acceptance of the Proposal.

Acceptance of a Proposal submitted by the Participant shall create an irrevocable obligation on the Participant, immediately after the acceptance date, to enter into a Contract.

In case less than three candidates' offers fulfil tender criteria in order for their financial proposals to be unsealed, then, PPA reserves the right to cancel the procedure by declaring it as non-successful.

After the cancelling of the tender procedure negotiation procedure may be carried out. In that case PPA retains the right to negotiate with the participants, provided that they:

- a. fulfil minimum technical requirements mentioned within table of Appendix C and
- b. Have submitted prequalification documents 5.2 iii, iv, vi, vii, viii, ix, x xi.

During negotiation procedure PPA will request from the above-mentioned participants to submit in a sealed envelope (not through email) improved offer within 3 working days without altering any of the technical/ quality/ specifications of the already submitted offers.

It is at the client's sole discretion to cancel the whole tender procedure at any stage. No compensation will be paid to the bidders under this circumstance.

## **8.7 TRUE AND CORRECT STATEMENTS**

Each Participant understands that the information contained in its Proposal will be relied upon by the Tender Evaluation Team in making their decision with respect to the award of the Contract and such information is expressly warranted by the Participant to be true and correct. Furthermore, each Participant will furnish such supporting and confirming information, prior to the award of the tender, as may be reasonably requested by the client.

Any approvals and permissions (by the Greek or any other Authorities) that are deemed necessary to fulfil the provision of Supply, Services and Contract should be described by the Participants in the Proposal, along with the activities required to achieve them (including duration and costs – Costs should be included only in the Financial proposal).

Notwithstanding the above, unless required by relevant rule and regulation (the Participants are obliged to mention explicitly such rule and/or regulation) that this is the obligation of the client to fulfil them, the Participant shall be responsible at their own cost to fulfil those approvals and permissions.

All proposed solutions must have any possible required suitable license or certificate to guarantee the usage of the hardware and software products in the European Union.

## **ARTICLE 9 ASSESSMENT OF PROPOSALS**

### **9.1 Evaluation Process**

The criterion for award of the Contract is the most economically advantageous Tender according to their financial scores (F) as follows:

#### **Step 1: Identifying abnormally low and/ or abnormally high prices**

Given that no specific quantities are required by this Tender and the quantities offered by the candidates will be based on the technical study they will submit, PPA's will assess if a candidate's offer is of an abnormally low and/ or abnormally high price according to the scope of the Tender. If an offer is assessed as of an abnormally low or of an abnormally high price, then clarifications should be requested from the Candidate (s) within two (2) working days on the particular elements that appear abnormally Low or abnormally high.

If the Candidate(s) fails to reasonably justify why his (their) offer(s) is considered abnormally low or abnormally high, then his offer will be rejected following Decision from PPA SA competent Body.

#### **Step 2: Determining of the Benchmark price "B"**

Benchmark Price "B" is determined by calculating the average of all the valid quoted prices excluding any abnormally high or abnormally low prices (after reasonable justification and decision by company competent decision maker) determined from Step 1.

If the number of valid quoted prices that have been unsealed is equal to or greater than six (6) then the benchmark "B" is calculated as the average between a. the average of all valid quoted prices; & b. average valid quoted prices without including the lowest valid quoted price & the highest valid quoted price.

If the number of valid quoted prices that have been unsealed is less than six (6) then the benchmark "B" is determined by calculating the average of all the valid quoted prices and then by calculating the average of the prices which are below the first average price. This is called Benchmark price "B".

#### **Step 3: Determining the Candidate's Financial Score "F"**

If the quoted price is equal to the evaluation benchmark price, then the offer is scored with F= 100 points;

The percentage difference between the offered financial price and the benchmark price B is calculated as follows:

- If the financial price is less than the Benchmark price, then the score F is calculated by deducting from 100 points 0.3 point for every 1% difference between quoted price and Benchmark price B.
- If the financial price is more than the Benchmark price, then the score F is calculated by deducting from 100 points 0.5 point for every 1% difference between quoted price and Benchmark price B.

The Tenderers should take the following into account:

- (i) If any of the offers are considered unusually low or unusually high, the Project Owner will be entitled to request that the Tenderers provide justification.
- (ii) If the PPA Decision-Maker finds that the most advantageous financial offer remains high, then PPA is entitled to proceed to further negotiations in order to have it reduced by the interim Contractor, or it may freely and without penalty even proceed to cancel the Tender.

## **9.2 Subcontracting**

If chosen as Contractor, Tenderer may outsource a part of the project corresponding to its work, up to worth of forty percent (40%) of the overall value of the project, to one or more Enterprises via subcontracting agreements.

In order to validly participate in the tender procedure, Candidates who wish to collaborate with a subcontractor(s) must present and indicate the subcontractor they wish to outsource work to under a subcontracting agreement, by submitting a Solemn Declaration from the subcontractor, where it thoroughly accepts the signing of the subcontracting agreement, if and when the Candidate is chosen as the project Contractor.

The subcontracting agreement must be submitted prior to the signing of the Contract. Any amendments, changes, replacements to or deadlines relating to the appointment of a subcontractor(s) may only be done under PPA's prior written approval. Moreover, the Contractor shall be obliged to promptly at any stage withdraw from the project any subcontractors who are considered by PPA not to have met the financial and technical standards and necessary experience to carry out the part of the project subcontracted to them by the Contractor.

## **9.3 Contractor's obligations – General provisions**

Staff insurance: The Contractor must have all its staff insured with the EFKA Fund or other social security provider, where its staff do not fall within the EFKA Fund's remit.

Insurance coverage for the project and staff: The Contractor shall be obliged to insure the project and its staff with an insurance company recognized by the Greek State against any risk of accidents

towards PPA and third parties and to ensure that it remains insured at all times without interruption, and to do the same for all manner of materials from delivery to integration into the project, worksite facilities, and any existing adjacent property of the Project Owner and PPA S.A., which is directly related to the project being built, and described in the contractual documents.

#### **9.4 The Contractor shall be obliged:**

- (a) to install signs and notices at worksite locations and sites where work is being carried out, depending on the nature of the work done.
- (b) to keep those signs and notices in working order until the project is completed.
- (c) to install flash lights at traffic hazard spots and where needed, to accept staff from the supervisory department to regulate the flow of traffic.

The Contractor shall be obliged to safeguard at own expense, machinery, tools or materials delivered by the Project Owner for use or integration into the project, and any damage, wear and tear or loss to them shall be imputed to the Contractor.

The Contractor shall be obliged to strictly, and without deviation, comply with the project implementation schedule which is a material term of the Contract and is of capital importance for PPA.

The Contractor is required to have all necessary licenses and approvals prior to commencing any work, as well as take all appropriate safety, security and health measures for the staff in order to comply with all applicable labor law provisions and the safety provisions in force at the workplace.

The Contractor is required to take all necessary and appropriate measures to protect the environment of PPA Port Area, as well as for the appropriate environmental disposal and / or alternative management of the waste resulting from the execution of its work.

In relation to the assembly and procurement of the contractual object, the Contractor is obliged to comply with all EU and Greek legislation, Rules of Art and Science and security measures for the performance of his obligations arising hereunder.

The Contractor is considered exclusively liable for any civil, criminal and administrative damages towards PPA and any third party, including PPA staff, and for any claim arising out of acts of wilful misconduct or negligence regarding the transportation, assembly and delivery of the object of the contract.

The Contractor is responsible for the insurance coverage of his own liability and his employees or whoever is acting on his behalf and for the insurance coverage of the equipment with which he provides his services. The insurance policy should also include a "Third Party Liability" within or as a result of the supply, transport and assembly of the project.

As a third party Greek State should also be designated as an insured party in parallel with PPA SA, as being in accordance with Article 17.4 (a) of the Concession Agreement between the Greek State and PPA SA, ratified by Law 4404/2016 (Government Gazette A 126 / 8-7-2016), where referred: "...the Hellenic Republic (including officials and staff of the Hellenic Republic) is named as an additional insured party under such policies covering third party claims, to the extent such claims relate to the Concession Assets, to the fullest extent of the Hellenic Republic's insurable interests;...". The Contractor should be insured with one or more insurance companies that operate legally within the European Union.

The Contractor, in addition to other sanctions or penalties provided within the contract and the call of tender, is liable for fully compensating PPA for any direct or indirect damages including the related to GDPR EU Regulation that PPA may incur as a result of his actions. The above obligation also includes full compensation due to the exercise by PPA SA of its own right of withdrawal under this contract, in the event of defects of the delivered PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM or lack of agreed technical requirements.

The Contractor is exclusively liable to strictly comply with Article 9 of the Law 4554/2018. In particular, either the contractor alone and/or jointly with its subcontractor, is obliged to comply with the provisions of labor and public insurance law, of legislation for health and safety of employees and workers, as well as the legislation for the prevention of professional risk, both of them being jointly and severally liable for the compensation of claims of employees and workers deriving from the above legal framework and the laws regarding the labor accidents.

In any case, the contractor shall be obliged to submit to PPA's competent department within the first 5 days the latest of every calendar month and as long as the contract will be valid (during whole duration of the contract) all statements of its employees' or workers' payments or dismissal compensations, if any, as well as all public insurance payments for the employees or workers of the contractor or its subcontractor, of the previous month, in pain of being revoked of the Project. Moreover, within the same deadline, the contractor shall also submit a solemn declaration of its legal representative, with a certification of his signature originality, declaring that all salaries, insurance contributions or any other kind of payments to its own or its subcontractor's employees and workers regarding the previous month, have been duly paid"

## **9.5 GDPR statement**

The participants are required to fill in, print and sign the GDPR statement as attached in Appendix D and include the hardcopy printed or scanned document in the Prequalification Documentation envelope.

## **APPENDIXES**

### **APPENDIX A:**

- i. Network Topology maps
- ii. PPA facilities mapping
- iii. PPA current CCTV camera list
- iv. Initial requirement of CCTV cameras

### **APPENDIX B Non-Disclosure Agreement**

#### **TENDER FOR THE AWARD OF PROCUREMENT OF PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM**

#### **Non-Disclosure Agreement (NDA)**

#### **Confidentiality Clause for all Participants in the Tender (persons and/or legal entities)**

The Interested party shall keep all information it receives from Piraeus Port Authority S.A. (ΟΛΠ Α.Ε.) or comes in its possession while participating in the tender/providing its services, strictly confidential also acting in accordance with the General Data Protection Regulation (GDPR) 2016/679 EU and all related legislation regarding the non – disclosure of confidential information. The Interested party shall not disclose any information deriving from or relevant to the Tender Procedure nor use the confidential information for its own or other purposes than participating in the present tender/providing its services. In the event that the Interested party breaches its confidentiality obligation deriving from the present NDA agreement, it shall be directly liable towards Piraeus Port Authority S.A. (ΟΛΠ Α.Ε.), and Piraeus Port Authority S.A. (ΟΛΠ Α.Ε) may claim compensation for any material or moral damage it may sustain, request that Confidential information is no longer communicated, instruct that it does not reoccur in the future and, generally, exercise all their legal rights.

1. The confidentiality obligation pertaining to any confidential information coming to the Company's attention, its personnel and delegates, shall be effective throughout the whole term of this present Tender Procedure and also survive the termination of the RFP and quote procedure and up to 3 years, howsoever occurring, unless they involve:
  - a. information already published or accessible through bibliography and in

- any case not as a result of a breach of the Interested party's obligations,
- b. information that was already legally known to the Interested party, prior to the execution of the present RFP and quote procedure, as evidenced by the Interested party's written records,
  - c. information that became known to the Interested party, after the termination of the RFP and quote procedure as evidenced by the Interested party's written records by another source and not Piraeus Port Authority S.A. (ΟΛΠ Α.Ε.).
  - d. information for which the Interested party has a disclosure obligation, in compliance with any legal provisions or within the scope of implementing any Court ruling, order of a District Attorney's order or other binding judicial or administrative decision of any governmental agency, administrative or regulatory authority.
2. In the event that the Interested party breaches its obligations, undertaken by virtue of the present NDA, Piraeus Port Authority S.A. (ΟΛΠ Α.Ε.) is entitled to claim compensation for any material or moral damage may sustain, without limitation, request that confidential information is no longer communicated and instruct that it does not reoccur in the future and, generally, exercise all its legal rights. All Parties shall promptly inform each other and in any case within 48 hours, in the event of any unlawful disclosure of confidential information pertaining to it, by making a specific reference to the incident and to the action taken in the meantime for the restoration of the loss or falsification of data belonging to Piraeus Port Authority S.A. (ΟΛΠ Α.Ε.), and shall work together, providing every possible assistance to each other, in order to end the violation and avoid or minimize any adverse consequences. Given the difficulty to prove the extent of the damages, in the event of a breach of the present non - disclosure agreement, Piraeus Port Authority S.A. (ΟΛΠ Α.Ε.) explicitly reserves every other legal right.

Name:

Date:

Authorized Representative:

Signature/ Stamp

## APPENDIX C

### Technical Specifications

#### **TECHNICAL SPECIFICATIONS/ REQUIREMENT'S TABLES**

#### **C.1. CAMERAS**

##### **C.1.1 Fixed External Type**

	Description	Requirement	Answer	Refer .
0	Number of offered items after On site Survey	At least 287 based on PPA initial on Site Survey		
1	Image Sensor	1/1.8" 4Megapixel progressive scan CMOS		
2	Max. Resolution	2688 (H) × 1520 (V) (Image resolution)		
3	RAM/ROM	1 GB/128 MB		
4	Minimum Illumination	0.003 <a href="#">Lux@F1.8</a> (minimum Illumination for color image)		
5	Illumination Distance	Distance up to 50 m (IR distance)		
6	Lens Type	Motorized vari-focal (auto – focus)		
7	Focal Length	2.7 mm–12.0 mm		
8	Angle of View	H: 114°–47°, V: 62°–26°		
9	Intelligent Face Detection	Functions that support Intelligent Face detection with attributes such as bear, glasses etc. and expressions e.g. angry, happy, sad etc., snapshot, three snapshot methods: real-time snapshot, optimization snapshot, quality priority; face angle filter;		
10	Perimeter Protection	Functions that support the classification and accurate detection of vehicle and human, Intelligent function such as Virtual fence intrusion; intrusion enter area/exit area; fast moving. Also support loitering detection; people gathering; parking detection		
11	People Counting	Functions that support the counting of enter number, leave number, and pass number, and displaying and outputting yearly/monthly/daily reports. Support the counting of number in area. Count number of people or stay time and link alarm. Support queue management. Count number of people or stay time and sends alarm		
12	Event Trigger / Alarm event	Functions which trigger alarm /notifications from motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly, Object Abandoned/Missing, No SD card; SD card full; SD card error; Defocus Detection; scene changing; intrusion; tripwire; fast moving; parking detection; loitering detection; people gathering; audio detection; people counting; face detection; voltage detection; People counting in area; Stay alarm; People No. exception detection; Queue Management; Motion detection, Video tampering , Scene changing		
13	Heatmap	The camera should analyze an object's movement around a certain space over time, displaying the most		

		active areas and outputting reports		
14	Compression	H.265, H.264, H.264B, H.264H, MJPEG (only supported by sub stream)		
15	Streaming Capability	3 Streams		
16	Frame Rate	2688×1520 (1 fps-25/30 fps) 2560×1440 (1 fps-25/30 fps) 1920×1080 (1 fps-50/60 fps)		
17	BLC Mode	BLC/HLC/WDR (140 dB) (filters provide optimal picture in hash light environment)		
18	White Balance	Auto/Natural/Street Lamp/Outdoor/Manual		
19	Electronic Image Stabilization (EIS)	Yes		
20	Smart Illumination	Yes		
21	Defog	Yes		
22	Audio Compression	G.711a, G.711Mu, AAC, G.726, G.723		
23	Network	RJ-45 (10/100Base-T)		
24	Protocol	IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP;RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP;NTP;Multicast;ICMP;IGMP;NFS;PPPoE;802.1x;SNMP		
25	User/Host	20		
26	Storage	NAS; FTP; SFTP; Micro SD card 256 GB		
27	Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07		
28	Audio Interface	1/1 channel In/Out		
29	Alarm connection	2 channel In: 5mA 5V DC 1 channel Out: 300mA 12V DC		
30	Power Supply	DC 12V (±30%), PoE+ (802.3at)		
31	Operating Conditions	-40° C to +60° C (-40° F to +140° F)/Less than 95% RH		
32	Heater	Yes (function that increase the temperature of the camera in case of extreme weather conditions)		
33	Protection Grade	IP67,IK10		
34	Licensing	Each camera should be accompanied with the corresponding license for the existing VMS software		
35	Firmware	Each camera should be offered with the latest System Firmware for the Greek Market		

### C.1.2 PTZ External Type

	Description	Requirement	Answer	Refer.
0	Number of offered items after On site Survey	At least 81 based on PPA initial on Site Survey		
1	Image Sensor	1/2.8" STARVIS™ CMOS		
2	Max. Resolution	2560(H) x 1440(V)		
3	Minimum Illumination	Color: 0.005Lux@F1.6; B/W: 0.0005Lux@F1.6;0Lux@F1.6 (IR on)		
4	Illumination Distance	250m		
5	Focal Length	3.95mm~177.75mm		

6	Angle of View	H: 70.3° ~ 1.8°; V: 37° ~ 1°; D: 69.3° ~ 2°		
7	Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -20° ~ 90°, auto flip 180°		
8	Manual Control Speed	Pan: 0.1° ~260° /s; Tilt: 0.1° ~120° /s		
9	Preset Speed	Pan: 300° /s; Tilt: 200° /s		
10	Presets	300 (number of default set locations)		
11	Tour	8 (up to 32 presets per tour)		
12	Perimeter Protection	Functions that support the classification and accurate detection of vehicle and human, Intelligent function such as Virtual fence intrusion; intrusion enter area/exit area; fast moving. Also support loitering detection; people gathering; parking detection		
13	Auto Tracking	Yes		
14	Video Structuralization	Functions that support human, motor vehicle and non-motor vehicle image capture		
15	Intelligent Face Detection	Functions that support Intelligent Face detection with attributes such as bear, glasses etc and expressions e.g. angry, happy, sad etc., snapshot, three snapshot methods: real-time snapshot, optimization snapshot, quality priority; face angle filter;		
16	Event Trigger / Alarm event	Functions which trigger alarm /notifications from motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly, Object Abandoned/Missing, No SD card; SD card full; SD card error; Defocus Detection; scene changing; intrusion; tripwire; fast moving; parking detection; loitering detection; people gathering; audio detection; people counting; face detection; voltage detection; People counting in area; Stay alarm; People No. exception detection; Queue Management; Motion detection, Video tampering , Scene changing		
17	Compression	H.265+/H.265/H.264+/H.264/MJPEG (Sub Stream)		
18	Streaming Capability	3 Streams		
19	Resolution	4M(2560×1440)/3M(2048×1536)/1080P(1920×1080)/720P (1280×720)/D1(704×576/704×480)/CIF(352×288/352×240)		
20	HLC/WDR	HLC/WDR (120 dB) (filters provide optimal picture in hash light environment)		
21	White Balance	Auto, ATW, Indoor, Outdoor, Manual		
22	Gain Control	Auto / Manual		
23	Noise Reduction	Ultra DNR (2D/3D)		
24	Defog	Support		
25	Audio Compression	G.711a/G.711Mu/AAC/G.722 / G.726/G.729/MPEG2-L2		
26	Ethernet	RJ-45 (10Base-T/100Base-TX)		
27	Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, RTCP, RTSP, RTP, SMTP, NTP, DHCP, DNS,PPPOE,DDNS,FTP, IP Filter,QoS,Bonjour,802.1x		
28	User/Host	20 users		
29	Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4- 2014		
30	Audio I/O	1 In, 1 Out		

31	Alarm I/O	7 In, 2 Out		
32	Power Supply	AC24V/3A(±25%), PoE+(802.3at)		
33	Operating Conditions	-40°C ~ 70°C (-40°F ~ +158°F) / Less than 95% RH		
34	Protection	IP67, IK10		
35	Licensing	Each camera should be accompanied with the corresponding license for the existing VMS software		
36	Firmware	Each camera should be offered with the latest System Firmware for the Greek Market		

### C.1.3. Dome Type

	Description	Requirement	Answer	Refer.
0	Number of offered items after On site Survey	At least 185 based on PPA initial on Site Survey		
1	Image Sensor	1/3" 4Megapixel progressive CMOS		
2	Max. Resolution	2688 (H) × 1520 (V)		
3	Min. Illumination	0.008 Lux @ F1.6		
4	Illumination Distance	30 m		
5	Focal Length	2.8 mm		
6	Smart event	Functions that support Virtual fence intrusion, Intrusion enter/exit area		
7	Video Compression	H.265; H.264; H.264B; MJPEG(only supported by sub stream)		
8	Stream Capability	2 streams		
9	BLC Mode	BLC/HLC/WDR (120 dB) (filters provide optimal picture in hash light environment)		
10	White Balance	Auto/natural/street lamp/outdoor/manual/regional custom		
11	Noise Reduction	3D NR		
12	Smart IR Illumination	Yes		
13	Built-in MIC	Yes		
14	Audio Compression	G.711A; G.711Mu; G.726		
15	Event Trigger / Alarm event	Functions which trigger alarm /notifications from No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; voltage detection; security exception		
16	Cyber Security	Support Security features such as Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade		
17	Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTPv3; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; Bonjour		
18	Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec		

19	User/Host	20		
20	Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07		
21	Power Supply	12V DC/PoE		
22	Operating Temperature	-40°C to +60°C (-40°F to +140°F)		
23	Operating Humidity	≤95%		
24	Protection	IP67		
25	Licensing	Each camera should be accompanied with the corresponding license for the existing VMS software		
26	Firmware	Each camera should be offered with the latest System Firmware for the Greek Market		

#### C.1.4. Thermal Type

	Description	Requirement	Answer	Refer
0	Number of offered items after On site Survey	At least 4 based on PPA initial on Site Survey		
1	Image Sensor	Uncooled VOx Microbolometer		
2	Effective Pixels	400(H)x300(V)		
3	Pixel Size	17um		
4	Thermal Sensitivity (NETD)	40mK		
5	Spectral Range	8~14um		
6	Color Palettes	18(Whitehot/Blackhot/Ironrow/Icefire/Fusion/Rainbow/Globow/Iconbow1/Iconbow2 .etc)		
7	Lens Type	Fixed F1.0		
8	Focal Length	7.5mm		
9	Compression	H.265 / H.264 / MJPEG		
10	Audio Compression	G.711A / G.711Mu / AAC / PCM		
11	Intelligence	Tripwire, Intrusion, Fire detection & alarm, Cold/Hot spot trace, Human/Vehicle classification		
12	Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x		
13	Interoperability	ONVIF Profile S & G, API		
14	Certification	CE (EN 60950: 2000) FCC (FCC Part 15 SubpartB )		
15	Video Interface	1 Port (CVBS/BNC)		
16	Audio Interface	1 In/1 Out		
17	Alarm connection	2 In/2 Out		
18	Power Supply	DC 12V/PoE		
19	Operating Condition	-40°C ~ +70°C		
20	Licensing	Each camera should be accompanied with the		

		corresponding license for the existing VMS software		
21	Firmware	Each camera should be offered with the latest System Firmware for the Greek Market		

### C.1.5. Fish Eye Type

	Description	Requirement	Answer	Refer
0	Number of offered items after On site Survey	At least 13 based on PPA initial on Site Survey		
1	Image Sensor	1/2.7"5Megapixel progressive CMOS		
2	Max. Resolution	2592 (H) × 1944 (V)		
3	RAM	512 MB		
4	Min. Illumination	0.006 Lux @F2.0		
5	Illumination Distance	10 m		
6	Focal Length	1.4 mm		
7	Field of View	Horizontal: 180° Vertical: 180° Diagonal: 180°		
8	BLC	Yes		
9	HLC	Yes		
10	WDR	120db		
11	Noise Reduction	3D DNR		
12	Region of Interest	Yes (4 areas)		
13	Built-in MIC	Yes		
14	Audio Compression	PCM; G.711a; G.711Mu; G726; AAC		
15	Alarm Event / trigger alarm	Functions which trigger alarm /notifications from No SD card; SD card full; SD card error; service life warning; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; scene changing; audio detection; voltage detection; external alarm; people counting in area; stay alarm; people counting; people No. exception detection; safety exception		
16	Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; 802.1x; SNMP		
17	User/Host	20		
18	Audio Input	1 RCA port		
19	Audio Output	1 RCA port		
20	Alarm Input/Output	1 In/1 Out		
21	Power Supply	12V DC/PoE		
22	Operating Conditions	-10°C to +50°C		
23	Certification	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07		

24	Licensing	Each camera should be accompanied with the corresponding license for the existing VMS software		
25	Firmware	Each camera should be offered with the latest System Firmware for the Greek Market		

## **C.2 VIDEO STORAGES**

	Description	Requirement	Answer	Refer.
0	Number of offered items after On site Survey	At least 6 based on PPA initial on Site Survey		
1	RAM	≥16GB		
2	SAS(Single Controller)	≥2		
3	Network (Single Controller)	1×1GbE management port; 4×1GbE LAN ports; 2×10-GbE optical fiber ports		
4	Power Redundancy	1+1		
5	eSATA	1×eSATA		
6	RS-232	1×DB9		
7	M.2 SSD(Single Controller)	2×NVMe SSD ports		
8	PCI-E(Single Controller)	1×PCI-E X8; 1×PCI-E X4		
9	Disk(Single Controller)	1×2.5 inch SATA		
10	Disk Bay	24		
11	Disk Type	24 x 10TB, 3.5-inch HDD, RAID Edition, Support simultaneously connecting to SAS/SSD		
12	Disk Installation	Independent disk tray		
13	Hot Swapping	Support		
14	RAID Type	RAID0, 1, 5, 6, 10, 50, 60, JBOD, Hot-Spare		
15	Disk Management	Non-working disks automatic sleep		
16	Disk Inspection	Inspection before use and during use		
17	Video Direct Storage	Up to 512-channel (1024 Mbps) access, storage, and forwarding; 32-channel (64 Mbps) online playback		
18	IPSAN Performance	Write-through: 900 Mbps Write-back: 1200 Mbps		
19	IPSAN Function	Dynamic online extension of logic volumes		
20	Network Protocol	RTP; RTCP; RTSP; UDP; HTTP; NTP; SNMP; iSCSI		
21	RTSP	ONVIF; GB28181		
22	Controller Mode	Dual-controller, active-active		
23	Network Mode	Link aggregation, fault tolerance		
24	Quick RAID	Yes		
25	RAID Instant Use	Yes		
26	RAID Rebuilding	Self-adaptive rebuilding		
27	RAID-write Synchronization	Yes		
28	Power Supply	100–127V/200–240V AC, 50/60Hz, 5A/2.5A		
29	Stand By Storage	The 1 Standby Storage will automatically replace another video storage in case of hardware failure		
30	Fan	Dual ball-bearing fans		

31	Operating Temperature	0°C to 45°C		
32	Operating Humidity	10%–80%		
33	Certifications	CE: EN 55024; EN 55032; EN 55035; EN 50130-4; EN 61000-3-2; EN 61000-3-3; EN 62368 FCC: ANSI C63.4, 47 CFR PART 15B Subpart B		
34	SFP modules	2+2 (Storage -Switch) 10G, Multi Mode compatible with existing Data Center Switches		
36	Firmware	Each Video Storage should be offered with the latest System Firmware for the Greek Market		

### **C.3 VIDEO MATRIX**

	Description	Requirement	Answer	Refer
0	Number of offered items after On site Survey	At least 1 based on PPA initial on Site Survey		
1	Main Processor	≥ Quad-core		
2	Slot	≥6		
3	Video Input Card	≥5		
4	Video Output Card	≥5		
5	Number of current screens to support	8		
6	Video In	HDMI, CVBS, DVI, HDCVI, HD-SDI		
7	Video Output Capabilities	MAX:80ch@4K or 320ch@1080P or 720ch@720P or 1280ch@D1 signal decoding		
8	Video Input Capabilities	MAX:80ch@1080P or 320ch@D1 signal encoding		
9	Video Out	HDMI		
10	Resolution	4000*3000@15fps, 3840*2160@30fps, 1920*1080@60fps, 1280*1024@60fps, 1280*720@60fps, 1024*768@60fps		
11	Split	1/4/6/8/9/16/25/36, free split		
12	Number of Screens	Support ≥50 screens splicing		
13	Video-Wall	Support Splicing/Zoom/Merge/ Roam/Overlay		
14	Network Interface	6 RJ-45 ports (10/100/1000M)		
15	Protocols	TCP/IP/RTP/RTSP/RTCP/TCP/UDP/DHCP/PPPoE and etc		
16	Serial Port	4 RS232 ports (4 RJ45), for console and control 1 RS485 port		
17	Power Supply	100~240V AC, 50/60Hz		
18	Working Environment	-10°C ~+50°C / 10~90%RH / 86~106kpa		
19	Firmware	Each Video Matrix should be offered with the latest System Firmware for the Greek Market		

### **C.4 NETWORK KEYBORD**

	Description	Requirement	Answer	Refer.
0	Number of offered items after On site Survey	At least 1 based on PPA initial on Site Survey		
1	Main Processor	Dual-core Processor		

2	Video Output	4×HDMI		
3	Stream Type	H.265, H.264, MPEG, Nonstandard		
4	Decoding Capability	3CH@12MP(25fps)/4CH@4K(25fps)/8CH@5MP(25fps)/12CH@3MP(25fps)/16CH@2MP(30fps)		
5	Display split	1/4/9/16		
6	Screen	≥ 10.1" TFT LCD touch screen (1280*800)		
7	Audio Input/Output	≥1		
8	Loudspeaker	≥1		
9	Alarm In	≥3		
10	Alarm Out	≥3		
11	Network Interface	2×RJ-45 port (100/1000M)), Wi-Fi		
12	USB Interface	≥3		
13	Max Number of PTZ	≥1000		
14	Power Supply	DC12V, 4A		
15	Working Temperature	-10°C ~+55°C		
16	Firmware	Each Video Matrix should be offered with the latest System Firmware for the Greek Market		

## **C.5 NETWORK EQUIPMENT**

#	Requirement	Mandatory	Answer	Refer.
	PPA would like to maintain uniformity in the Network Infrastructure. For that reason, the offered switches that will be needed after the On Site Survey , should be compatible to the offered Cameras and following table or the updated equal type (high preferable).			
0	Number of offered items after On site Survey			
<b>1</b>	<b>Type 1 switch</b>			
1.1	8x10/100/1000Base-T Ethernet ports	YES		
1.2	4x10G SFP+ ports	YES		
1.3	All Base-T Ethernet ports support PoE+	YES		
<b>2</b>	<b>Type 2 switch</b>			
2.1	24x10/100/1000Base-T Ethernet ports	YES		
2.2	4x10G SFP+ ports	YES		
2.3	All Base-T Ethernet ports support PoE+	YES		
<b>3</b>	<b>Type 3 switch</b>			
3.1	48x10/100/1000Base-T Ethernet ports	YES		
3.2	4x10G SFP+ ports	YES		
3.3	All Base-T Ethernet ports support PoE+	YES		
<b>4</b>	<b>Type 4 Industrial switch</b>			
4.1	8x10/100/1000Base-T Ethernet ports	YES		
4.2	2x10G SFP+ ports	YES		
4.3	8 Base-T Ethernet ports support PoE+	YES		
<b>5</b>	<b>Type 5 switch</b>			
5.1	24*10GE SFP+ ports	YES		
5.2	6*40GE QSFP28 ports	YES		

<b>6</b>	<b>Warrantee</b>			
6.1	All the offered switches should be backed by Co-Care Standard 9x5xNBD Service-36Month(s)	YES		
<b>7</b>	<b>Licenses</b>			
7.1	All the offered switches should be backed by existing PPA NMS license	YES		
<b>8</b>	<b>Power Suppliers</b>			
8.1	Double power suppliers in each switch (where it is applicable)	YES		
<b>9</b>	<b>SFP modules</b>			
9.1	In the implementation, each offered switch should have at least 2 pair of optical connections (with their corresponding SFPs modules) 1G or 10G, 4 in total per switch (2+2).	YES		
9.2	GE SFP, Single-mode Module (1310nm,10 km, LC)	YES		
9.3	GE SFP, Multi-mode Module (850nm,0.55 km, LC)	YES		

## **C.6 OUTSIDE PLANT CABINETS**

<b>General</b>				
<b>#</b>	<b>Requirement</b>	<b>Mandatory</b>	<b>Answer</b>	<b>Refer</b>
0	Number of offered items after On site Survey			
1	Heavy industrial type	YES		
2	IP66 according to IEC 60529	YES		
3	IK10 according to IEC62262	YES		
4	Made of polyester with fiberglass reinforcement suitable for installation in an environment with high temperatures.	YES		
5	The dimensions of the pillar must be at least 1000X800X350.	YES		
6	Support base 40cm high with removable panels. All parts must be hot dip galvanized	YES		
7	Layout drawing of all pillar sides.	YES		
8	It must bring luminaire with switch.	YES		
9	It must bring door terminal switch with NC contact.	YES		
10	It must bring thermostat.	YES		
11	It must bring 2 fans controlled by the thermostat (one for inlet and one for air extraction) with blinds and rain hoods INOX 304	YES		
12	Fans must be axial 230VAC 120x120x38mm	YES		
13	Fan must be bearing or maglev technology.	YES		
14	The minimum airflow of each fan must be at least 140m3 / h	YES		
15	Each fan must bring metallic dust filter suitable for electromagnetic shielding.	YES		
16	Pillar and must protect by inox 304 rain hood	YES		
17	The distribution of AC as well as the distribution of DC must be done using MCBs 1+N. Exception is the supply of fans and the luminaire that can be done using ceramic fuses.	YES		
18	All RCDs must be Type F.	YES		
19	All distribution material except SPDs and terminal blocks must be from the same manufacturer. Acceptable	YES		

	manufacturers of distribution material are Schneider, Legrand, ABB, and Siemens.			
20	It must bring cable glands for each cable.	YES		
21	Signaling: All device contacts (switches, PSU fault, etc.) must be terminated in two-story choc block in the low voltage area	YES		
22	At each pillar must be included a din rail 12port Cat6A patch panel	YES		
23	At each pillar must be include a din rail 24port fiber optic LC single mode patch panel	YES		
24	The following industrial power supplies and batteries must be installed inside the pillar. The following must be considered in the design. All power supplies as well as the modules of the blocking diodes must be of the same manufacturer with this of PSUs. The minimum distance between the power supplies should be 15mm UTP cables which terminated in the Patch Panel must be in contact with those of the surge arrestors  NOTE: All the bolts for the connection of the cabinet with the support base must be at least stainless-steel material	YES		

<b>DC/DC Converter 24V,5A 2 pcs/pillar</b>				
#	Requirement	Mandatory	Answer	Refer
0	Number of offered items after On site Survey			
	General			
1	Isolated 24Vdc Output	YES		
2	Efficiency up to 90.3%	YES		
3	20% Output Power Reserves	YES		
4	Full Power Between -25°C and +60°C	YES		
5	Minimal Inrush Current Surge	YES		
6	Operational temperature -25°C to +70°C	YES		
7	Operational Humidity 5 to 95% r.H.	YES		
8	Vibration sinusoidal 2-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2 hours / axis IEC 60068-2-6	YES		
9	Shock 30g 6ms, 20g 11ms 3 bumps / direction, 18 bumps in total IEC 60068-2-27	YES		
10	Over-temperature protection	YES		
11	Output shut-down with automatic restart	YES		
12	Isolation resistance input to output 500Vdc > 5MΩ	YES		
13	Din rail mount	YES		
	Input			
1	DC-Input 36.0-60.0Vdc full specified	YES		
2	Input inrush current typ. 0.6A peak (-25°C to +70°C, input: 48Vdc)	YES		
3	Soft-start function: Yes	YES		
4	Reverse voltage protection: Yes	YES		
5	Input transient protection: MOV Metal Oxide Varistor	YES		
	Output			
1	Output voltage DC 24-48V (adjustable)	YES		

2	Load regulation max. 100mV (static value, 0A-5A)	YES		
3	Output current 5 – 4.3A (ambient < 60°C)	YES		
4	Output ripple max. 50mVpp	YES		
5	Output de-rating 1.6W/°C 45-60°C 3W/°C 60-70°C	YES		
6	Output protection Electronically protected against overload, no-load and short-circuits	YES		
7	Output over-voltage protection typ. 31Vdc max. 32Vdc. The output shuts down and automatically attempts to restart.	YES		
9	Classification of output voltage SELV IEC/EN 60950-1, PELV IEC/EN 60204-1, EN 50178, IEC 62477-1, IEC 60364-4-41	YES		
10	Over-voltage category III IEC 62477-1, EN 50178, altitudes up to 2000m II altitudes from 2000m to 6000m	YES		
11	Degree of pollution, 2, IEC 62477-1, EN 50178, not conductive	YES		
12	Efficiency: 90.3% at 24V,5A	YES		
13	Losses: 12.9W at 24V,5A	YES		
14	Lifetime expectancy 64 000h at 24V, 5A and 40°C	YES		
15	MTBF SN 29500, IEC 61709 951 000h at 24V, 5A and 40°C	YES		
16	MTBF MIL HDBK 217F 559 000h at 24V, 5A and 40°C; Ground Benign GB40	YES		
17	Dielectric Strength Type test 60sec Input-Output 1500Vac Chassis-Output 500Vac Chassis- Input 1500Vac	YES		
18	EMC Immunity According to EN 61000-4-2 Criterion A, EN 61000-4-3 Criterion A, EN 61000-4-4 Criterion A, EN 61000-4-5 Criterion A, EN 61000-4-6 Criterion A	YES		
19	EMC Emission according to EN 61000-6-3, EN 61000-6-4, IEC/CISPR 16-1-2, IEC/CISPR 16-2-1, EN 55011 class B, EN 55022 class B	YES		
21	Approvals/Standards EC Declaration of Conformity approval, Marine approval (GL, ABS etc),RoHS Directive	YES		
22	Warranty 3 years	YES		

<b>DC/DC Converter 48V,5A 1pcs/pillar</b>				
#	Requirement	Mandatory	Answer	Refer.
0	Number of offered items after On site Survey			
	<u>General</u>			
1	Isolated 48Vdc Output	YES		
2	Efficiency up to 95.1%	YES		
3	20% Output Power Reserves	YES		
4	Full Power Between -25°C and +60°C	YES		
5	Minimal Inrush Current Surg	YES		

6	Operational temperature -25°C to +70°C	YES		
7	Operational Humidity 5 to 95% r.H.	YES		
8	Vibration sinusoidal, 2-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2 hours / axis IEC 60068-2-6	YES		
9	Shock 30g 6ms, 20g 11ms 3 bumps / direction, 18 bumps in total IEC 60068-2-27	YES		
10	Output shut-down with automatic restart	YES		
11	Isolation resistance input to output 500Vdc > 5MOhm	YES		
12	Din rail mount	YES		
	<b>Input</b>			
1	DC-Input: 36.0-60.0Vdc full specified	YES		
2	Input inrush current typ. 7A peak	YES		
3	Soft-start function: Yes	YES		
4	Reverse voltage protection: Yes	YES		
5	Input transient protection: MOV Metal Oxide Varistor	YES		
	<b>Output</b>	YES		
1	Output voltage: DC 48-56V (adjustable)	YES		
2	Load regulation: 200mV (static value, 0A-5A)	YES		
3	Output current: 5A (ambient 60°C)	YES		
4	Output ripple: 100mVpp	YES		
5	Output protection: Continuous current	YES		
6	Output over-voltage protection typ. 31Vdc max. 32Vdc The output shuts down and automatically attempts to restart.	YES		
7	Degree of pollution: 2, IEC 62477-1, not conductive	YES		
8	Losses: 12.4W	YES		
9	Lifetime expectancy: 160 000h at 5A and 40°C	YES		
10	MTBF SN 29500, IEC 61709 951 000h at 24V, 5A and 40°C	YES		
11	MTBF MIL HDBK 217F 559 000h at 24V, 5A and 40°C; Ground Benign GB40	YES		
12	Dielectric Strength Type test 60sec Input-Output 1500Vac Chassis-Output 500Vac Chassis- Input 1500Vac	YES		
13	EMC Immunity According to EN61000-4-2 Criterion A, EN61000-4-3 Criterion A, EN 61000-4-4 Criterion A, EN 61000-4-5 Criterion A, EN 61000-4-6 Criterion A	YES		
14	EMC Emission according to IEC/CISPR 16-1-2, IEC/CISPR 16-2-1, EN 55011 class B, EN 55022 class B	YES		
16	Approvals/Standards EC Declaration of Conformity approval, Marine approval (GL, ABS etc), RoHS Directive.	YES		
17	Warranty 3 years	YES		

<b>AC/DC 48V,10A 2pcs/pillar</b>				
#	Requirement	Mandatory	Answer	Refer.
0	Number of offered items after On site Survey			
	<u>General</u>			
1	48Vdc Output	YES		

2	Efficiency up to 96,3%	YES		
3	20% Output Power Reserves	YES		
4	Full Power Between -25°C and +60°C	YES		
5	Minimal Inrush Current Surg	YES		
6	Operational temperature -25°C to +70°C	YES		
7	Operational Humidity 5 to 95% r.H.	YES		
8	Vibration sinusoidal 2-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2 hours / axis IEC 60068-2-6	YES		
9	Shock 30g 6ms, 20g 11ms 3 bumps / direction, 18 bumps in total IEC 60068-2-27	YES		
10	Output shut-down with automatic restart	YES		
11	Isolation resistance input to output 500Vdc > 500MOhm	YES		
12	Din rail mount	YES		
	<b>Input</b>	YES		
1	AC-Input: 85-264Vac continuous operation	YES		
2	Input current: 2,23A at 230Vac	YES		
3	Input inrush current: typ. 4,5A peak at 230Vac	YES		
4	Power factor: typ.0.980 at 230V	YES		
5	Input transient protection: MOV Metal Oxide Varistor	YES		
	<b>Output</b>	YES		
1	Output voltage: DC 48V	YES		
2	Load regulation: 150mV (static value, 0A-10A, single use mode)	YES		
3	Output current: 10A ambient 60°C, 12A ambient <45oC	YES		
4	Output ripple: 50mVpp	YES		
5	Output temperature protection	YES		
6	Output over-voltage protection typ. 58,5Vdc max. 60Vdc The output shuts down and automatically attempts to restart.	YES		
7	Degree of pollution: 2, IEC 62477-1,not conductive	YES		
8	Losses : 18,4W at 48V 10A	YES		
9	Lifetime expectancy: 110 000h at 10A and 40°C	YES		
10	MTBF SN 29500, IEC 61709 951000h at 48V, 10A and 40°C	YES		
11	MTBF MIL HDBK 217F 559000h at 48V, 10A and 40°C; Ground Benign GB40	YES		
12	Dielectric Strength Type test 60sec Input-Output 3000Vac Earth -Output 1000Vac Earth- Input 2500Vac	YES		
13	EMC Immunity According to EN61000-4-2 Criterion A, EN61000-4-3 Criterion A, EN61000-4-4 Criterion A, EN61000-4-5 Criterion A, EN61000-4-6 Criterion A, EN61000-4-11 Criterion A, VDE 0160 Criterion A	YES		
14	EMC Emission according to EN55011, EN55022,FCC Part 15, CISPR 11,CISPR Class B	YES		
16	Approvals/Standards EC Declaration of Conformity approval, REACH Directive, Safety Isolating Transformer – IEC/EN 61558	YES		
17	Warranty 3 years	YES		

<b>Blocking Diodes 24-56V,40A 1pcs/pillar</b>				
<b>#</b>	<b>Requirement</b>	<b>Mandatory</b>	<b>Answer</b>	<b>Refer</b>
0	Number of offered items after On site Survey			
	General	YES		
1	Special design for N+1 and 1+1 Redundant Systems	YES		
2	Dual Input with Single Output	YES		
4	Maximum 60mV Voltage Drop at 20A Output Current	YES		
5	Maximum 1.8W Loss at 20A and 5.4W at 40A Output Current	YES		
6	160% (65A) Peak Load Capability	YES		
7	Reverse Input Polarity Protection	YES		
8	Full Power Between -40°C and +60°C	YES		
9	Operational Humidity 5 to 95% r.H.	YES		
10	Vibration sinusoidal 2-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2 hours / axis IEC 60068-2-6	YES		
11	Shock 30g 6ms, 20g 11ms 3 bumps / direction, 18 bumps in total IEC 60068-2-27	YES		
	<b>Input- Output characteristics</b>	YES		
1	Input voltage: DC24-56V ±15%	YES		
2	Input voltage range: 20.4-64.4 Vdc	YES		
3	Input current: 2X0-20A continuous	YES		
4	Output current: 40A continuous	YES		
5	Reverse current: 1mA at 48V per unit -40oC to + 70oC	YES		
7	Output transient protection	YES		
8	Degree of pollution, 2, IEC 62103,EN 50178, not conductive	YES		
9	Losses 5,4W at 48V input 2X20A 1.8W at 48V input 2X10A	YES		
10	Lifetime expectancy 222 000h input 2X20 A at 48V and 40°C 448 000h input 2X10A at 48V and 40oC	YES		
11	MTBF SN 29500, IEC 61709 6656000h input 2X10 A at 48V and 40°C 4098000h input 2X20A at 48V and 40oC	YES		
12	MTBF MIL HDBK 217F 211000h input 2X10 A at 48V and 40°C 178000h input 2X20A at 48V and 40oC Ground Benign GB40	YES		
13	Dielectric Strength Type test 60sec Input/Output -Chassis 500Vac	YES		
14	EMC Immunity According to EN 61000-4-2 Criterion A EN 61000-4-3 Criterion A EN 61000-4-4 Criterion A EN 61000-4-5 Criterion A EN 61000-4-6 Criterion A EN 61000-4-8 Criterion A	YES		
15	EMC Emission according to EN 55011,EN55022 Class B,IEC/CISPR 16-1-2,IEC/CISPR 16-2-1	YES		

16	Temperature range operational -40°C to +70°C	YES		
17	Approvals/Standards EC Declaration of Conformity approval, Marine	YES		
18	Warranty 3 years	YES		

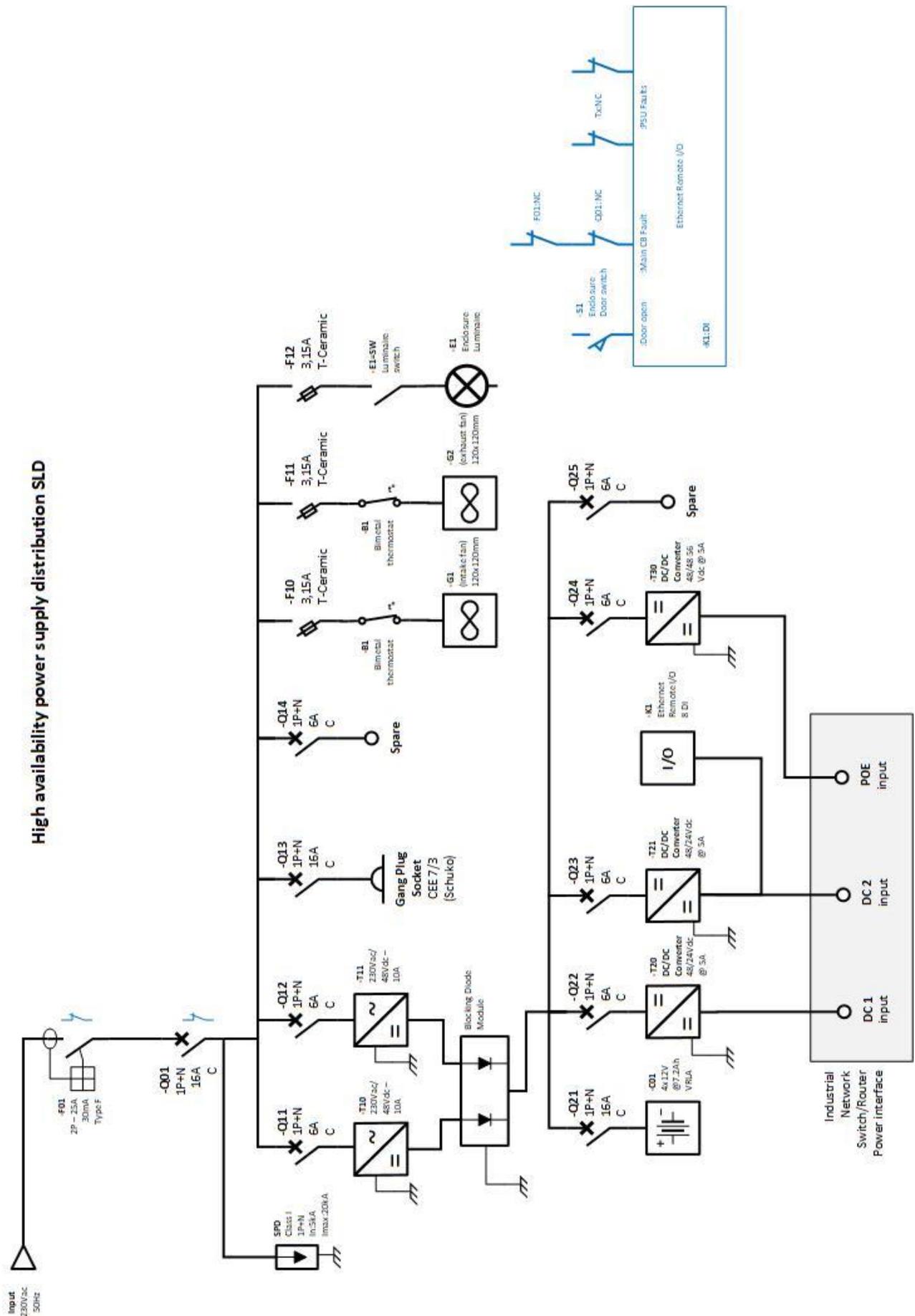
**All above devices (PSU AC/DC, PSU DC/DC & Blocking Diodes) must be made from the same manufacturer**

<b>Ethernet Remote I/O</b>				
#	Requirement	Mandatory	Answer	Refer.
0	Number of offered items after On site Survey			
1	At least 12 Digital inputs	YES		
2	Connection type 2 x RJ45 plug-in connectors	YES		
3	Communication protocols Modbus/TCP SNMP	YES		
4	Voltage supply 24 V DC +20 %/ -15 %, via the system bus	YES		
5	Input voltage, high > 11 V	YES		
6	Input voltage, low < 5 V	YES		
7	Operating temperature -40 °C ... +70 °C	YES		
8	Air humidity (operation) 10% to 95%, noncondensing as per DIN EN 61131-2	YES		
9	Approvals/Standards EC Declaration of Conformity approval, Shock IEC 60068-2-27 Vibration IEC 60068-2-6	YES		
10	Warranty 3 years	YES		

<b>Battery array Pack (4x12V 8.Ah) 1pack/pillar</b>				
#	Requirement	Mandatory	Answer	Refer.
0	Number of offered items after On site Survey			
1	Nominal Voltage of each battery 12V (6 cells per unit)	YES		
2	Nominal Capacity of each battery 8.0Ah @20hr-rate to 1.75V per cell @25°C	YES		
3	Operating Temperature Range Discharge: -15°C ~ 50°C Charge: -15°C ~ 40°C	YES		
4	Float Charging Voltage of each battery 13.5 ~ 13.8 VDC/Unit at 25°C	YES		
5	Equalization Charging Voltage of each battery 14.4 ~ 15.0 VDC/Unit at 25°C	YES		
6	Internal Resistance of each battery Approx. 23.0mΩ	YES		
7	Short Circuit Current of each battery 276A	YES		
8	Maximum Charge Current 2.16A	YES		
9	Container Material ABS (UL 94-HB) & Flame Retardant (94-V0)	YES		
10	Terminal types of each battery F1/F2 terminal -Faston Tab 187/250	YES		
11	Constant Power Discharge must be 15min >150W @ 1,85V	YES		
12	A separate battery pack must be including the Battery array (4 batteries). This battery pack must be properly to fixing inside of pillar.	YES		
13	Warranty 1 year	YES		

<b>Surge protection (Terminal rail fixing), 1 A, According to IEC61643-21 Quantity (one for each UTP input Cable)</b>				
<b>#</b>	<b>Requirement</b>	<b>Mandatory</b>	<b>Answer</b>	<b>Refer.</b>
0	Number of offered items after On site Survey			
1	Din Rail	YES		
2	Suitable for Cat. 6 (up to 250 MHz Class E)	YES		
3	Suitable for PoE+ (according to IEEE 802.3at)	YES		
4	Protection of all wire pairs	YES		
5	Connection via RJ45 sockets	YES		
6	Metal housing	YES		
7	Humidity 0-95 % (no condensation)	YES		
8	Operating temperature, min. -40 °C /max. 80 °C	YES		
9	Voltage Breakdown (VDC) L-G 72 V - 120 V	YES		
10	Voltage Breakdown (VDC) L-L 53 V - 73 V	YES		
11	Rated Voltage 48 V	YES		
12	Voltage type AC/DC	YES		
13	Max. continuous voltage, U <sub>c</sub> (AC) 48 V	YES		
14	Discharge current, I <sub>imp</sub> (10/350 μs) 1 kA	YES		
15	Discharge current I <sub>n</sub> (8/20μs) wire-PE 5 kA	YES		
16	Discharge current I <sub>max</sub> (8/20μs) wire-PE 10 kA	YES		
17	Protection level UP (typ.) ≤ 550 V	YES		
18	Standards According to IEC61643-21	YES		
19	Insertion loss ≤ 1 dB @ 250 MHz	YES		
20	Signal transmission properties (-3 dB) 250 kHz Suitable for RJ45 plug	YES		
21	Rated current I <sub>N</sub> 1 A	YES		
22	Surge current-carrying capacity C2 10 kA	YES		
23	Surge current-carrying capacity D1 1 kA 10/350 μs	YES		
24	Volume resistance < 0.1 Ω Wire-PE capacitance @ 1 MHz, 1 V <sub>rms</sub> 20 pF	YES		
25	Approvals EC Declaration of Conformity approval, ROHS	YES		

## High availability power supply distribution SLD



## C.7 CAMERAS' POLES

#	Requirement	Mandatory	Answer	Refer .
0	Number of offered items after On site Survey			
1	The new poles of the Cameras must be made of suitable material, hot-dip galvanized	YES		
2	The poles must consist of welded fixed tubular pieces of equivalent length. Metal Thickness must be at least 5mm. Poles must be screwed to four brackets anchored to the ground and spaced together from the ground surface, at least 5cm	YES		
3	New and existing poles should be provided with suitable ground, which must be mounted on the ground in accordance with the relevant requirements of Greek regulations.	YES		
4	The new metallic poles must be hollow internally and must have an opening at a specific point in the compartment at the bottom of the pole to cross and slide the cables. At the top of the pole there must be suitable holes for the cables to pass through to the corresponding equipment ensuring the tightness of the pole.	YES		
5	The height of the pole will be varied according to the place it will be installed	YES		

**NOTE 1:** There is a possibility to build infrastructure in the existing pylons in the port zone for the installation of the cameras

**NOTE 2:** All the bolts for the connection of the cabinet with the support base must be at least stainless steel material

### **C.8 INFRASTRUCTURE – ROUTES**

#	Requirement	Mandatory	Answer	Refer .
1	The excavations for the points that must be considered necessary must be a natural continuation of the existing infrastructure and routes of PPA SA. They must be carried out by the contractor on his own and after thorough on the site survey and after obtaining all necessary relevant permits from all Public Agencies involved, if necessary. The Contractor is obliged to prepare the file with the studies and supporting documents for permits from public authorities that may need to be issued in the name of PPA SA and assist PPA SA in their prompt issuance. Upon the completion of the excavations, the restoration of the Port Facility site to its original condition is the responsibility of the prospective Contractor.	YES		
2	The cable protection pipes must be made of thermoplastic HDPE 450Nt, and according to EN 61386-24, NF P98-332/EN 12613 & EN 50520 (type GEOSUB/FLEX)	YES		
3	The cross-section of the piping shall be at least OD 75mm. The pipes must be about 10cm apart from each other and from the edges of the trench.	YES		

<b>4</b>	Filling of the ditch and boxing of the pipe up to 10 cm from its upper end must be done with quarry sands and squeezing on both sides of the pipe. The rest of the ditch must be covered with crushed quarry material which must be compacted.	YES		
<b>5</b>	Routing operations include the installation of a marking grid along the length of the trench.	YES		

**NOTE:** Repair and restoration of any damage to existing infrastructure during the works is the responsibility of the contractor.

## **C.9 CABLING**

<b>#</b>	<b>Requirement</b>	<b>Mandato ry</b>	<b>Answe r</b>	<b>Refer .</b>
<b>0</b>	Number of offered items after Onsite Survey			
<b>1</b>	The new cables required for the installation and operation are divided into power supplies and signals / controls. For their procurement it should be considered of the specifics of the Port Facility, the environmental conditions, the underground routes, the durability, the threat of rodents, etc. From each point of access for their installation and transit (wells, openings, etc.), upon completion, the necessary measures must be taken to ensure their closed and waterproof installation. Additionally, all cable types including optical and electrical must be certified and labeled on the outer insulation material according the EU CPR Cable standards.	YES		
<b>2</b>	Cameras Connectivity cables: <ul style="list-style-type: none"> <li>Indoor: CAT6 with solid conductor diameter of AWG 22, EU CPR Certified Indoor</li> <li>Outdoor: CAT6 with solid conductor diameter of AWG 22, EU CPR Certified Outdoor</li> </ul>	YES		
<b>3</b>	Cabinet Power Cables: NYY, cross section, according to distance and voltage drop. The technical offer must be including a study for the Voltage drop for each route.	YES		
<b>4</b>	Fiber optic cables, enclosed in at least the following technical specifications: <ul style="list-style-type: none"> <li>Type: At least 12 pairs (24 fibers) shielded one-way optical fiber, with antirust protection.</li> <li>Wavelength: 1310 nm,</li> <li>Operating field diameter: <math>9.2 \pm 0.6 \mu\text{m}</math>,</li> <li><math>\Phi</math> Bark diameter: <math>245 \pm 10 \text{ m}</math></li> <li>Insulation skin concentricity error: <math>12.5 \mu\text{m}</math>.</li> <li>Cut-out wavelength: 1150/1330 nm,</li> <li>Loss at 1310/1550 nm: <math>\leq 0.38 \text{ db / km} / \leq 0.25 \text{ dB / km}</math>,</li> <li>Color dispersion: <math>\leq 3.5 \text{ ps / nm.km}</math> (between 1285 and 1330 nm),</li> <li>Color dispersion at 1550 nm: <math>\leq 18 \text{ ps / nm.km}</math>,</li> <li>Loss variation: <math>0.1 \text{ dB / km}</math> (between <math>-40 \text{ }^\circ\text{C}</math> and <math>+70 \text{ }^\circ\text{C}</math>),</li> </ul>	YES		

	<ul style="list-style-type: none"> <li>refractive index at 1310/1550 nm: 1,467,</li> <li>Halogen-free cable.</li> <li>Resistance / Crushing: 2000 N,</li> <li>Twist: 5 rev / m,</li> <li>Maximum traction load: 700N,</li> <li>Minimum static bending: 69mm,</li> <li>Minimum dynamic bending: 104mm,</li> <li>Operation at minimum temperature range: -20 ° C to + 50 ° C,</li> <li>Water resistance: &lt;3m @ 18hr.</li> </ul>			
5	The Engineering and environmental requirements must be in accordance with EN / IEC 60793-2, as well as IEC 60332-1 or later	YES		
6	All cables must be routed both within the PE underground tubes but also within the lighting and camera tissues (existing or new).	YES		

### **C.10 WIRING INFRASTRUCTURE**

#	Description	Mandato ry	Answer	Refer .
0	Number of offered items after On site Survey			
1	<u>Wall mounted</u> <ul style="list-style-type: none"> <li>In case of individual cables, they will be installed through electrical plastic conduit (medium type) or through small plastic trunking system.</li> <li>In case of many cables, they will be installed through electrical metallic cable tray or through plastic trunking systems, of appropriate dimensions, so that the possibility of accessibility and changes is ensured.</li> </ul>			
2	<u>Concealed type installations in plasterboard</u> <ul style="list-style-type: none"> <li>They will be installed through electrical plastic conduit (light type).</li> </ul>			
3	<u>Infrastructure Trough Plasterboard/Suspended Amf Ceiling</u> <ul style="list-style-type: none"> <li>Through existing metallic cable tray.</li> <li>In places where it is impossible to use the existing metallic cable tray or to install new ones, the cables must carefully install inside the ceiling, at distance from any high voltage cables and in the best technical and safe possible way</li> </ul>			
4	<u>PORTABLE TENT</u> <ul style="list-style-type: none"> <li>Through existing metallic cable tray.</li> <li>In places where there is none existing metallic cable tray, in case of many cables a new one must be installed or in case of individual cables, they must be installed through electrical plastic conduit (medium type).</li> </ul>			
5	The dimensions of any new plastic trunking system/metallic cable tray should be selected in such way that has 25% more of the total space in case of future installations.			
6	The infrastructure should be implemented with three basic criteria: a) the shortest possible length of the cables, b) appropriate technical way and c) the most elegant possible way.			

<b>7</b>	All cables will be terminated in wall mounted or in drywall box sockets (Jack Module). The devices will be connected to the sockets with patch cords. It is not allowed to connect the cable directly to the device with a 4-pair modular plug type RJ45.			

**C.11 RACK**

#	Description	Requirement	Answer	Refer.
<b>0</b>	Number of offered items after Onsite Survey	At least 1 based on PPA initial onsite Survey		
<b>1</b>	Type	Enclosure		
<b>2</b>	Color	Black		
<b>3</b>	Height	42 U		
<b>4</b>	Rack Size	Standard (19")		
<b>5</b>	Device Compatibility	Patch Panel, Network Switch, UPS, Server, Video Storage, Rack Mount KVM		
<b>6</b>	PDU's	At least dual		
<b>7</b>	Fans	On the Roof		
<b>8</b>	Stabilizers	Yes		
<b>9</b>	Door	Front and Rear		
<b>10</b>	RACK Cable manager	10 pcs.		

**NOTE: All replies in the above Technical Specifications table must be detailed and referenced to the relevant proposed product documentation.**

**C.12 LICENCES**

#	Description	Requirement	Answer	Refer.
<b>0</b>	Number of offered items after On site Survey	At least 570 based on PPA initial on Site Survey + the licenses for the existing cameras that are compatible with the existing VMS and can be added		
<b>1</b>	Type	Licenses for existing VMS software in order to add the offered cameras and the existing compatible cameras to existing VMS software		

**C.13 SURVEILLANCE AREA AND EQUIPMENT REFERENCE**

The areas that should be covered in this phase of PPA Integrated Digital Management Platform project are displayed in the port layout as reference in Appendix A.

**C.14 TIME PLAN**

#	Requirement	Mandator y	Answer	Refer .
1.	<p>The supplier should provide a detailed project implementation time schedule in phases for the delivery of the entire project taking under consideration all the required tasks (i.e. indicatively: site survey, design, equipment delivery, POC if needed, installation, parametrization, tests, training, etc.). It should include 2 Project phases:</p> <p><u>Stage 1</u></p> <ul style="list-style-type: none"> <li>• deliver the Architecture H/W implementation</li> <li>• deliver the deployment of G2 Car Terminal compound coverage</li> <li>• deliver the deployment of Logistics area</li> <li>• deliver the deployment of Cruise Terminal CCTV coverage</li> </ul> <p><u>Stage 2</u></p> <ul style="list-style-type: none"> <li>• Deliver the deployment and implementation of the rest part</li> </ul>	YES		

**C.15 TRAINING**

#	Requirement	Mandator y	Answer	Refer .
1	Classroom Training of at least 16 hours for 4 administrators and 8 hours for operators.	YES		
2	Hands-on training that will empower the Piraeus Port Authority S.A. personnel to proceed with the required tasks that need to be completed during the deployment period. On-the-job training of at least 16 hours, pertaining to the additional training of administrators of the application on the job, addressing any concerns and questions of the administrators.	YES		

**C.16 SUPPORT**

#	Requirement	Mandator y	Answer	Refer .
1.	The Supplier of the proposed equipment for the «PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM » project, should guarantee by submitting appropriate letter (together with his offer) from the manufacturer, for the existence of	YES		

	<p>spare parts and support for the proposed «PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM » for at least six (6) years from the go-live operational date for the entire PPA area.</p>			
<p>2.</p>	<p><b>Warranty:</b></p> <p>The Contractor is required to provide at least three (3) years of obligatory Warranty services starting from the Final Acceptance of the Project, and optionally Maintenance services for the software and hardware that has been offered for at least three (3) years starting from the end of the Warranty Period.</p> <p>The warranty terms should be included in the Contract.</p> <p>The duration of the licenses should be at least equal to the duration of the warrantee period offered.</p> <p>Preventive maintenance (during the warranty period) should includes: i) hardware, operating systems of hardware updates and upgrades during the requested warranty period, ii) Quality Assurance tests, reports and optimization for every four (4) months, iii) Configuration in Camera, Storage, Servers, VMS, settings after new request that maybe be not included during the initial installation and configuration.</p> <p>During the warrantee period the services provided will include the ones mentioned within SLA Services below.</p>	<p>YES</p>		
<p>3.</p>	<p><b>SLA:</b></p> <p>Technical support, including hardware and software shall be provided by vendor’s ticketing software, telephone, e-mail and web site to individuals representing the authorized users of PPA. Technical support must be available 24x7x365 with response time in maximum 30 minutes from any incident.</p> <p>Response will be addressed in accordance with the assigned priority level.</p> <p>Priority 1 - Complete loss of service the situation is an emergency: Up to 4 hours for provision of workaround or malfunction complete repair. (Workaround constitute temporary solution until the proper resolution of the issue)</p> <p>Priority 2 - Partial loss of service related to software or hardware error: Next Calendar Day.</p>	<p>YES</p>		

	<p>In the event that the PPA requests in writing from the Contractor any additional service, the Contractor is obliged to send a written technical and financial offer with an implementation.</p> <p>Subsequently, the Contractor will be required to initiate the implementation after written response of the PPA on the acceptance of the proposal.</p>			
4.	<p><b>Maintenance Services (Optional - After the duration of the warranty period):</b></p> <p>The Maintenance services period begins with the end of the Warranty Period and lasts for at least three (3) years.</p> <p>The maintenance services should be equal to warranty services.</p> <p>With regard to maintenance costs, for the maintenance period, Candidates shall quote the relevant costs per year. One month before the end of the Warranty period, PPA is entitled to exercise its right to purchase optional Maintenance services for three years.</p> <p>It is obligatory for the Candidate to provide annual maintenance/support costs for the maintenance period which will be counted and evaluated in the frame of the Candidate's financial Offer, but it is in PPA's sole and absolute discretion to decide if it will purchase the maintenance/support or not.</p>	YES		

**NOTE: All replies in the above Technical Specifications table must be detailed and referenced to the relevant proposed product documentation**

## **APPENDIX D: GDPR Statement**

### PPA SA Personal Data Protection Disclaimer

I confirm that any personal data that may be disclosed to PPA SA by the contractor to be selected pursuant to the terms of this Tender Invitation are correct and I agree to the process and use of the personal data by (Name of the Agency) in order to forward such data to Piraeus Port Authority S.A., in accordance with the International Ship and Port Facility Security Code (ISPS) for the purpose of granting permission of entrance to Piraeus Port Authority facility, for me to execute certain task mentioned in the respective electronic form filled out by the aforesaid agency.

I agree to the process and the use of the aforesaid personal data in order for them to be categorized and for statistical analysis purposes and I have been properly informed in accordance with the current legislation in force.

PPA S.A. collects processes and forwards the aforesaid personal data strictly for the purposes mentioned above and for which you have expressly consented. The processing being performed is absolutely necessary and performed by competent personnel of the Company. The Company utilizes for the purposes of processing other persons that are bound to proceed to processing specially asked according to the present agreement and the Law. The personal data may be sent to other Countries either within the European Union or not, for the purposes of processing that you have provided consent. The processors within the European Union are bound by GDPR 2016/679/EK (Regulation). The personal data are being kept by PPA SA for the period of 2 years except otherwise provided by the Law. You have the option if you wish to contact PPA SA at [gdpr@olp.gr](mailto:gdpr@olp.gr) for any matter regarding your personal data according to the provisions of the Law in force.

The Subject

Signature

Name

Surname

## **Appendix E: Participation Bond**

(TENDER BANK GUARANTEE)

Piraeus Port Authority S.A. (PPA S.A.)

10, Akti Miaouli

185 38, Piraeus Greece

Date:.....

Dear Sirs,

**1.** We have been advised that:

a)[Full Name], a [Type of Entity], lawfully established under the laws of [jurisdiction], with registered offices at [Full Address of Registered Office], registration number [number of corporations' or similar register], as lawfully represented (the "Candidate") intends to submit a binding offer (the "Offer"), in response to a document entitled "CALL OF TENDER FOR THE AWARD OF PROCUREMENT OF PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM FOR PPA SA NEEDS", issued by Piraeus Port Authority S.A. ("PPA" or "you") and dated ..... (the "Call"). Capitalized terms not defined herein shall be used as defined in the Call.

**2.** We have been advised that the obligations of Candidates regarding their participation in the tender process are several and accept to be bound by and to honour this letter of guarantee whether or not a call on this instrument results from the act or omission of any of the persons named at the beginning of paragraph 3 below.

**3.** In view of the foregoing and at the request and for the account of the Candidate, we [Full Name of Eligible Bank], acting through our [●] branch of [Full Address], hereby guarantee irrevocably and unreservedly to PPA S.A. for the full and proper observance by, and compliance of the Candidate with the terms and conditions applicable to their participation in the Process, as well as for any and all other financial and non-financial obligations of the Candidate relating to its participation in the Process, each pursuant to Call and the provisions of applicable law, up to a maximum aggregate amount of 10.000,00(€)

**4.** We shall commit the above amount and shall pay same to you in whole or in such part as you may specify in writing, without any objection or pretext, within two (2) Athens business days following receipt of your first and simple demand in writing or by authenticated SWIFT making reference to this letter of guarantee and stating that the Participant(s) failed to comply with the terms

**5.** We hereby expressly and irrevocably waive the benefit of division and discussion, our right to invoke any of the objections of the prime obligor, including personal and non-personal objections and, in particular, any objection provided for under Articles 852-855, 862-863, 866, 867 and 869 of the Greek Civil Code and waiving also any and all of our rights under the said Articles.

**6.** No approval, act or consent on the part of any of the Participants, the applicant(s) hereof or any third party shall be required for payment of any amounts hereunder. In addition, no objection or disagreement of any of the foregoing persons or their eventual recourse to courts

of any jurisdiction or arbitral tribunals seeking non-forfeiture of this letter of guarantee shall be taken into consideration.

**7.** Subject to paragraph 8 below, this letter of guarantee is of indefinite duration and in any case shall remain in full force and effect until the earlier of: (a) the date on which all amounts available hereunder have been fully and actually drawn and paid to you; (b) upon receipt of your confirmation in writing or by authenticated SWIFT to the effect that you finally and irrevocably release us from any obligations hereunder.

**8.** This guarantee shall be governed and construed in accordance with Greek law. The courts of Athens, Greece shall have exclusive jurisdiction to resolve any disputes associated with this instrument.

Respectfully,

For [Eligible Bank]

[Authorized Signatures]

## APPENDIX F

Financial offer Template

### Financial Table F.1-1 Software Hardware Services

#	DESCRIPTION	ITEM NAME	QTY.	PRICE [€]		VAT [€]	TOTAL PRICE INCLUDING VAT [€]	* MAINTENANCE COST [€]		
				Excluding VAT				EXCLUDING VAT		
				UNIT PRICE	TOTAL PRICE			Year 4	Year 5	Year 6
1	Licences									
2	Storages / Network Equipment/ Matrix									
3	Cameras									
4	Infrastructure (Cabling, Pillars, Poles, etc.)									
5	Physical Installation Services									
6	Implementation Services									
				<b>TOTAL</b>	<b>B</b>			<b>B1</b>	<b>B2</b>	<b>B3</b>

\* Maintenance Cost refers to the years after the end of the minimum 3 Years requested Warranty period.

\*\* Physical Installation Services include: Cameras, Poles, Pillars installation, Civil Works, Cabling installation

\*\*\* Implementation Services must include: Design – Configuration (Cameras Settings, AI settings)– Migration of the existing System – Commissioning-Warranty - Consulting.

### Financial Table F.1-2 Training

A/A	DESCRIPTION	Man Month	PRICE [€]		VAT [€]	TOTAL PRICE INCLUDING VAT [€]
			Excluding VAT			
			UNIT PRICE	TOTAL PRICE		
			<b>TOTAL</b>			

### Financial Table F.1-3 Other Costs

A/A	DESCRIPTION	Qty.	PRICE [€]		VAT [€]	TOTAL PRICE INCLUDING VAT [€]
			Excluding VAT			
			UNIT PRICE	TOTAL PRICE		
<b>TOTAL</b>						

**Financial Table F.1-4 Total Costs**

A/A	DESCRIPTION	TOTAL PRICE [€] Excluding VAT	VAT [€]	TOTAL PRICE INCLUDING VAT [€]
1	Software, hardware and services (Table F.1.1)			
2	Training (Table F.1.2)			
3	Other Costs (Table F.1.3)			
4	Maintenance cost for 3 years (Table F.1.1)			
<b>GRAND TOTAL</b>				

**Financial Table F.1-5 Optional Costs**

A/A	DESCRIPTION	PRICE [€]		VAT [€]	TOTAL PRICE INCLUDING VAT [€]
		Excluding VAT			
		UNIT PRICE	TOTAL PRICE		

**Financial Table F.1-6 Price list**

Financial table F 1.6 Reference Price List which includes all possible hardware and services which but not limited to hardware of switch, camera, , pillar, pole, and the other auxiliary materials and service of project management, equipment installation, civil constructions, survey, design, etc.

A/A	Description	Unit measure	Unit Price
1.	Switch Type A		
2.	Switch Type B		

3.	Switch Type C		
4.	...		
5.	Camera Type A		
6.	Camera Type B		
7.	Camera Type C		
8.	...		
9.	Pilar Type A		
10.	Pilar Type B		
11.	Pilar Type C		
12.	...		
13.	Pole Type A		
14.	Pole Type B		
15.	Pole Type C		
16.	...		
17.	Video Storage Type A		
18.	Video Storage Type B		
19.	Video Storage Type C		
20.	...		
21.	Matrix Type A		
22.	...		
23.	Network Keyboard Type A		
24.	...		
25.	Rack Type A		
26.	...		
27.	Installation service A		
28.	Installation service B		
29.	Installation service C		
30.	...		
31.	Construction service A		
32.	Construction service B		
33.	Construction service C		
34.	...		

\*\*\* Financial table F 1.6 will be used to be calculated any possible equipment and workload and cost deviation during the all project's phases

## **Appendix G: Advance Payment Letter of Guarantee**

Bank:

Branch:

Date of issuance:

To:

Piraeus Port Authority S.A. (PPA S.A.)/ Procurement Department

10, Akti Miaouli

185 38, Piraeus Greece

ADVANCE PAYMENT LETTER OF GUARANTEE NUMBER: ..... EURO .....

We are honoured to notify you that we hereby expressly, unreservedly and irrevocably guarantee, waiving the benefit of division and discussion, our right to invoke any of the objections of the prime obligor, including personal and non-personal objections and, in particular, any objection provided for under Articles 852-856, 862- 869 of the Greek Civil Code and waiving also any and all of our rights under the said Articles and any other provision of law, in favour (in the case of an individual company)

of the Company .....

Address .....

For the amount corresponding to .....% (calculated without including VAT) ....., for the advance payment received according to their obligations deriving from the terms of the contract for the procurement of the "....."

The present letter will remain at your disposal and will pay it to you in whole or in part, in accordance with your instructions, without any objection or demurral from us and without investigations the justification of your claim within three (3) days of your written notification.

The present letter is valid until it is returned back from your side or until we receive from you written statement with which it will be considered that our Bank is free from any liability whatsoever.

This present Guarantee is subject to Greek Law and to the exclusive jurisdiction of the Courts of Piraeus.

We confirm that by we are responsible for issuing the present letter of guarantee and that there is no violation of the provisions regarding the maximum amount limit of issuance of letters of guarantee by our Bank.

(Authorized Signature)

Respectfully,

For [Eligible Bank]

[Authorized Signatures]

## **Appendix H: Performance Bond**

(TENDER BANK GUARANTEE)

Piraeus Port Authority S.A. (PPA S.A.)

10, Akti Miaouli

185 38, Piraeus Greece

Date: .....

Dear Sirs,

**1.** Herewith we guarantee, irrevocably and unconditionally, waiving the right to divide and to require the debtor to pay first, in favor of Piraeus Port Authority S.A. Akti Miaouli 10, 18538 Piraeus, Greece and up to the amount of euro [.....] for the good performance of the contract with [...company name....], [...company address..], concerning the tender procedure initiated on [...date..], as subsequently amended accordingly of Piraeus Port Authority S.A. Akti Miaouli 10, 18538 Piraeus, Greece, with the subject: "PROCUREMENT OF PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM FOR PPA SA NEEDS" of total value euro [.....], in accordance with the number [...] purchase order of yours dated [.....].

**2.** The above amount of guarantee is held at your disposal which we are obliged to pay to you in whole or in part without any rejection or objection on our behalf and without considering the merits of your claim within three (3) days upon your written notice.

**3.** For the purpose of identification your written demand for payment and all other correspondences has to be presented to us in full by authenticated swift message to our swift address [.....] through the intermediary of a bank. Within the validity period of this guarantee, confirming that your original demand for payment or any other correspondence has been sent to us by registered mail or special courier and that the signatures appearing thereon are authentic and legally binding upon your company. Your written demand or other correspondence by registered mail of special courier shall be accompanied by a cover letter issued by the intermediary bank confirming that the signatures appearing on the beneficiary's attached document are authentic and legally binding upon your company. Your written demand and all other correspondence shall be issued in English language. For the avoidance of doubt, your demand for payment or any other correspondence shall be deemed to have lodged on the date on which your demand for payment or any other correspondence sent via registered mail of special courier is in our possession at our counters in [.....]

**4.** This open end guarantee will be returned to the contractor after the lapse of six (6) months from the completion of the PPA INTEGRATED DIGITAL MANAGEMENT PLATFORM project and will automatically become null and void, if your claim in the above form has not been received by us on or before the above mentioned duration regardless of such date being a banking day or not. Upon expiry, we shall be automatically released and discharged from all our liabilities under this guarantee, whether this guarantee is returned to us from cancellation or not.

**5.** This guarantee is personal to you and is neither assignable nor transferable.

**6.** If the guarantee is forfeited, the amount of the forfeiture is subject to the applicable stamp duty.

**7.** This guarantee is governed by Greek law and it is subject to the exclusive jurisdiction of the courts of Piraeus, Greece.

Respectfully,

For [Eligible Bank]

[Authorized Signatures]