

IMPORTANT NOTE

Submission of e-Tenders

Tenders must be submitted by registered Economic Operators.

EPPS users holding a sole trader account are kindly reminded that their account can only be used to submit tenders under their sole trader's name and not on behalf of any other organisation.

In case a tender needs to be submitted by any other type of Economic Operator (e.g. Company/Joint Venture/Consortium), an account needs to be created either through the ePPS or e-ID as per Terms of Use for Economic Operators and only this account must be used to submit the tender.

In the case where a person requires to submit a tender on behalf of an entity which may be an organisation or Joint Venture/Consortium, the submission must be performed through the account of the entity. The latter must assign the person an account to perform the submission on its behalf, if the person is not already assigned. The entity will be considered as the economic operator submitting the tender.

Economic Operators are reminded that ONLY in the case of New Account Registrations, irrespective of the type and form of the Economic Operators, they have a choice between registering either directly through the ePPS at www.etenders.gov.mt or through the e-ID Service via the MyGov website at www.mygov.mt. In the case of the latter, Economic Operators must qualify for e-ID as per the ePPS Terms of Use for Economic Operators.

Prospective Bidders are reminded that when submitting more than one option for a particular CfT, they should submit multiple tenders.

Prospective Bidders are reminded to follow the above instructions and other instructions in the Terms of Use of the e-procurement system (ePPS) and the Manual for Economic Operators available under the 'Help' tab of the epps homepage.

The Department of Contracts reserves the right to disqualify Economic Operators who do not abide by the above instructions.

Submission of Financial Offer

Tenderers must quote all components of the price inclusive of taxes/charges, customs and import duties and any discounts BUT excluding VAT. VAT shall be paid in accordance with the current VAT regulations.



REFERENCE NUMBER: MGA/04/2017

TENDER FOR THE IMPLEMENTATION OF A NETWORK ANALYSIS TOOL WITH MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE

Date Published: 28th November 2017

Deadline for Submission: 18th December 2017 at 10.00am CET


Tender Opening: 18th December 2017 at 10:30am CET

IMPORTANT:

- No Bid Bond is requested for this tender.

IMPORTANT

Clarifications shall be uploaded and will be available to view/download from www.etenders.gov.mt

 This e-tender does not require print-outs from this document. Please consider your environmental responsibility before printing.



Malta Gaming Authority
Building SCM 02-03, Level 4,
SmartCity Malta,
Ricasoli SCM1001,
Malta
Tel: +356 2546 9000
Email: info.mga@mga.org.mt

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## SECTION 1 - INSTRUCTIONS TO TENDERERS

### 1. General Instructions

- 1.1 In submitting a tender (unless otherwise indicated, a tender offer above 100MB will not be accepted by the system (ePPS), the tenderer accepts in full and in its entirety, the content of this tender document, including subsequent Clarifications issued by the Central Government Authority/Contracting Authority (CGA/CA), whatever the economic operator's own corresponding conditions may be, which through the submission of the tender is waived. Tenderers are expected to examine carefully and comply with all instructions, forms, contract provisions and specifications contained in this tender document. These Instructions to Tenderers complement the General Rules Governing Tenders Version 2.1, the Terms of Use and the Manual for Economic Operators applicable to Government's e-Procurement Platform (available from [www.etenders.gov.mt](http://www.etenders.gov.mt)).

No account can be taken of any reservation in the tender in respect of the procurement documents; any disagreement, contradiction, alteration or deviation shall lead to the tender offer not being considered any further.

Prospective tenderers must submit their response to this tender online, at [www.etenders.gov.mt](http://www.etenders.gov.mt), by completing the prescribed tender response format using the Tender Preparation Tool (TPT) provided by the System. Please note that the TPT was recently updated. This means that anyone who has downloaded the TPT in the past will need to download this tool again. If this is not done, the tender package, created using the old version of the tool, will not be accepted by the e-tenders portal. Therefore, to avoid the inconvenience of having the tender package rejected, please make sure that you fill in the tender structure using the latest version which can be downloaded from the <http://www.etenders.gov.mt> portal. In case of any discrepancy between the requirements contained in this document and those in the tender response format (xml tender structure), the latter shall prevail.

Prospective tenderers take full responsibility to submit their electronic tender response (offer) well before the tender submission deadline in order to avoid last minute upload restrictions. Tender offers must be fully uploaded/accepted by the ePPS prior to the deadline for submission of offers, that is, tenders in transit upon tender submission deadline will be rejected.

**Note:**

Where in this tender document a standard is quoted, it is to be understood that the Contracting Authority will accept equivalent standards. However, it will be the responsibility of the respective bidders to prove that the standards they quoted are equivalent to the standards requested by the Contracting Authority.

- 1.2 The subject of this tender is the implementation of a network analysis tool which makes use of machine learning and artificial intelligence and highlights network security risks instantly in real time.
- 1.3 The place of acceptance of the supplies shall be The Malta Gaming Authority, Building SCM 02-03, Level 4, SmartCity Malta, Ricasoli SCM1001, Malta, the time-limits for the execution of the contract shall be 3 weeks from date of contract, and the INCOTERM<sup>2010</sup> applicable shall be **Delivery Duty Paid (DDP)**.
- 1.4 This is a global price/fee-based for supplies contracts.
- 1.5 This call for tenders is being issued under an open procedure.
- 1.6 This call for tenders is not a reserved contract.
- 1.7 The Contracting Authority for this tender is the Malta Gaming Authority.

## 2. Timetable

|                                                                                                                                                                                                                      | DATE         | TIME  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|
| Clarification Meeting/Site Visit (Refer to Clause 6.1)                                                                                                                                                               | n/a          | n/a   |
| Workshop (Refer to Clause 6.2)                                                                                                                                                                                       | Refer to 6.2 | -     |
| Deadline for request for any additional information from the Contracting Authority:<br><br>Clarifications by registered users to be sent online through <a href="http://www.etenders.gov.mt">www.etenders.gov.mt</a> | 06/12/2017   | 23:00 |
| Last date on which additional information can be issued by the Contracting Authority                                                                                                                                 | 12/12/2017   | 23:00 |
| Deadline for Submission of Tenders<br>(unless otherwise modified in terms of Clause 10.1 of the General Rules Governing Tendering)                                                                                   | 18/12/2017   | 10:00 |
| Tender Opening Session<br>(unless otherwise modified in terms of Clause 10.1 of the General Rules Governing Tendering)                                                                                               | 18/12/2017   | 10:30 |
| * All times Central European Time (CET)/Central European Summer Time (CEST) as applicable                                                                                                                            |              |       |

## 3. Lots

- 3.1 This tender is not divided into lots, and tenders must be for the whole of quantities indicated. Tenders will not be accepted for incomplete quantities.

## 4. Variant Solutions

- 4.1 No variant solutions will be accepted. Tenderers must submit a tender in accordance with the requirements of the tender document.

## **5. Financing**

- 5.1 The project is financed from local budget funds.

## **6. Clarification Meeting/Site Visit/Workshop**

- 6.1 No clarification meeting/site visit is planned.

- 6.2 Economic operators may register to attend a workshop that will be organised in collaboration with the Institute for Public Services (Ex-CDRT: Centre for Development, Research and Training) at San Salvatore Bastion, Sa Maison Road, Floriana FRN1610. During this workshop, economic operators will be given the opportunity to familiarise themselves with Government's e-Procurement platform. *If a workshop is going to be organised*

Economic operators are to register to attend this workshop by sending an email on [etenders@gov.mt](mailto:etenders@gov.mt) with the name, surname, role within the organisation, and contact details (telephone and email address) of the nominated person.

## **7. Selection and Award Requirements**

In order to be considered eligible for the award of the contract, economic operators must provide evidence that they meet or exceed certain minimum criteria described hereunder.

### **(A) Eligibility Criteria**

- (i) Declare agreement, conformity and compliance with the General Rules Governing Tendering Version 2.1 in the Tender Response Format (available from [www.etenders.gov.mt](http://www.etenders.gov.mt)).
- (ii) Declare agreement, conformity and compliance with the provisions of the Tenderer's Declaration, the terms of use and the manual for Economic Operators in Tender Response Format.
- (iii) Declare agreement, conformity and compliance with the provisions of the Statement on Conditions of Employment in Tender Response Format.
- (iv) Power of Attorney (if applicable). <sup>(Note 2)</sup>
- (v) Data on Joint Venture/Consortium (if applicable). <sup>(Note 2)</sup>

**(B) Exclusion (including Blacklisting) and Selection Criteria - information to be submitted through the tender response format (available from [www.etenders.gov.mt](http://www.etenders.gov.mt)). <sup>(Note 2)</sup>**

- (i) Declaration concerning exclusion grounds (as per tender structure)

### (C) Technical Specifications

- (i) Tenderer's Technical Offer in response to specifications to be submitted online through the prescribed Tender Response Format and by using the Tender Preparation Tool provided. <sup>(Note 3)</sup>
- (ii) **Literature** as per Form marked 'Literature List' may be requested during the adjudication stage to supplement the technical offer submitted. If requested, the Literature must be submitted within 5 working days of being notified to do so. <sup>(Note 3)</sup> If Literature is not submitted within the specified timeframe, offer will not be considered further.
- (iii) **Samples** as per Form marked 'Sample List' may be requested during the adjudication stage to supplement the technical offer submitted. If requested, the Samples must be submitted within 5 working days of being notified to do so. <sup>(Note 3)</sup> If Samples are not submitted within the specified timeframe, offer will not be considered further.

***Tenderers are NOT requested to supply Literature and Samples at Publication Stage. Should the Tender Evaluation Committee deem that Literature and/or Samples are required to supplement the technical offer already submitted, such a request will be sought from the Tenderer during the Adjudication Stage.***

***Should the tenderer submit Literature and Samples at Publication Stage, such items/information shall NOT be taken into consideration.***

### (D) Financial Offer

- (i) A financial offer calculated on the basis of **Delivered Duty Paid (DDP)** <sup>2010</sup> **(Grand Total)** for the supplies tendered as per Tender Response Format [inclusive of spare parts/after-sales services/maintenance/training as applicable]. <sup>(Note 3)</sup>
- (ii) A filled-in Financial Bid Form (as per document available to download online from [www.etenders.gov.mt](http://www.etenders.gov.mt)) as per Tender Response Format. <sup>(Note 3)</sup>

#### **Notes to Clause 7:**

1. *Not applicable for departmental tenders.*
2. *Tenderers will be requested to either clarify/rectify any incorrect and/or incomplete documentation, and/or submit any missing documents within five working days from notification. Rectification is free of charge.*
3. *No rectification shall be allowed. Only clarifications on the submitted information may be requested.*

## **8. Tender Guarantee (Bid Bond)**

- 8.1 No tender guarantee (bid bond) is required.



## ***9. Criteria for Award***

- 9.1 The sole award criterion will be the price. The contract will be awarded to the tenderer submitting the cheapest priced offer satisfying the administrative and technical criteria.

## SECTION 2 - EXTRACTS FROM THE PUBLIC PROCUREMENT REGULATIONS

### *Part IX of the Public Procurement Regulations*

#### Appeals from decisions taken after the closing date for the submissions of an offer

**270.** Where the estimated value of the public contract meets or exceeds five thousand euro (€5,000) any tenderer or candidate concerned, or any person, having or having had an interest or who has been harmed or risks being harmed by an alleged infringement or by any decision taken including a proposed award in obtaining a contract, a rejection of a tender or a cancellation of a call for tender after the lapse of the publication period, may file an appeal by means of an objection before the Public Contracts Review Board, which shall contain in a very clear manner the reasons for their complaints.

**271.** The objection shall be filed within ten (10) calendar days following the date on which the contracting authority or the authority responsible for the tendering process has by fax or other electronic means sent its proposed award decision or the rejection of a tender or the cancellation of the call for tenders after the lapse of the publication period.

**272.** The communication to each tenderer or candidate concerned of the proposed award or of the cancellation of the call for tenders shall be accompanied by a summary of the relevant reasons relating to the rejection of the tender as set out in regulation 242 or the reasons why the call for tenders is being cancelled after the lapse of the publication period, and by a precise statement of the exact standstill period.

**273.** The objection shall only be valid if accompanied by a deposit equivalent to 0.50 per cent of the estimated value set by the contracting authority of the whole tender or if the tender is divided into lots according to the estimated value of the tender set by the contracting authority for each lot submitted by the tenderer, provided that in no case shall the deposit be less than four hundred euro (€400) or more than fifty thousand euro (€50,000) which may be refunded as the Public Contracts Review Board may decide in its decision.

**274.** The Secretary of the Public Contracts Review Board shall immediately notify the Director, the Ministerial Procurement Unit and, or the contracting authority, as the case may be, that an objection had been filed with his authority thereby immediately suspending the award procedure.

**275.** The Department of Contracts, the Ministerial Procurement Unit or the contracting authority involved, as the case may be, shall be precluded from concluding the contract during the period of ten (10) calendar days allowed for the submission of appeals. The award process shall be completely suspended if an appeal is eventually submitted.

**276.** The procedure to be followed in submitting and determining appeals as well as the conditions under which such appeals may be filed shall be the following:

- (a) any decision by the General Contracts Committee, the Ministerial Procurement Unit or the Special Contracts Committee or by the contracting authority, shall be made public by affixing it to the notice-board of the Department of Contracts, the Ministerial Procurement Unit or of the office of the contracting authority, as the case may be, or by uploading it on government's e-procurement platform prior to the award of the contract if the call for tenders is administered by the Department of Contracts;

(b) the appeal of the complainant shall also be affixed to the notice-board of the Public Contracts Review Board and shall be communicated by fax or by other electronic means to all participating tenderers;

(c) the contracting authority and any interested party may, within ten (10) calendar days from the day on which the appeal is affixed to the notice board of the Review Board and uploaded where applicable on the government's e-procurement platform, file a written reply to the appeal. These replies shall also be affixed to the notice board of the Review Board and where applicable they shall also be uploaded on the government's eProcurement platform;

(d) the authority responsible for the tendering process shall within ten (10) days forward to the chairman of the Public Contracts Review Board all documentation pertaining to the call for tenders in question including files and tenders submitted;

(e) the secretary of the Review Board shall inform all the participants of the call for tenders, the Department of Contracts, the Ministerial Procurement Unit and the contracting authority of the date or dates, as the case may be, when the appeal will be heard;

(f) when the oral hearing is concluded, the Public Contracts Review Board, if it does not deliver the decision on the same day, shall reserve decision for the earliest possible date to be fixed for the purpose, but not later than six (6) weeks from the day of the oral hearing:

Provided that for serious and justified reasons expressed in writing by means of an order notified to all the parties, the Public Contracts Review Board may postpone the judgment for a later period;

(g) the secretary of the Review Board shall keep a record of the grounds of each adjournment and of everything done in each sitting;

(h) after evaluating all the evidence and after considering all submissions put forward by the parties, the Public Contracts Review Board shall decide whether to accede or reject the appeal or even cancel the call if it appears to it that this is best in the circumstances of the case.

## SECTION 3 - SPECIAL CONDITIONS

These conditions amplify and supplement, if necessary, the General Conditions governing the contract. Unless the Special Conditions provide otherwise, those General Conditions remain fully applicable. The numbering of the Articles of the Special Conditions is not consecutive but follows the numbering of the Articles of the General Conditions. Other Special Conditions should be indicated afterwards.

### *Article 2: Law Applicable*

The laws of Malta shall apply in all matters not covered by the provisions of the contract.

The language used shall be English.

### *Article 3: Order of Precedence of Contract Documents*

The contract is made up of the following documents, in order of precedence:

- (a) the Contract;
- (b) the Special Conditions;
- (c) the General Conditions;
- (d) the Contracting Authority's technical specifications and design documentation;
- (e) the Contractor's technical offer, and the design documentation (drawings);
- (f) the bill of quantities (after arithmetical corrections)/breakdown;
- (g) the tender declarations in the Tender Response Format;
- (h) any other documents forming part of the contract.

Addenda have the order of precedence of the document they are modifying.

### *Article 4: Communications*

All communications in writing should be addressed to:  
Jason Farrugia - IT Manager  
Building SCM 02-03, Level 4,  
SmartCity Malta, Ricasoli SCM1001, Malta

### *Article 7: Supply of Documents*

As per General Conditions

### *Article 8: Assistance with Local Regulations*

As per General Conditions

### *Article 9: The Contractor's Obligations*

As per General Conditions

**Article 10: Origin**

As per General Conditions

**Article 11: Performance Guarantee**

The Contractor shall, within 15 calendar days of receipt of the contract, sign and date the contract and return it together with a copy of the Performance Guarantee. The copy of the Performance Guarantee forwarded to the Central Government Authority is to be endorsed by the Contracting Authority prior to submission. The Contractor is therefore obliged to forward the original Performance Guarantee to the Contracting Authority. The amount of the guarantee shall be 4% where the amount of the total contract value is between €10,000 and €500,000 exclusive of VAT, and 10% where the amount of the total contract value is €500,000 or above.

The performance guarantee shall be in the format given in Section 5 and shall be provided in the form of a bank guarantee.

The Performance Guarantee shall be released within 30 days from Provisional Acceptance.

The Contractor must guarantee the availability of spare parts for at least 3 years from the time that production ceases.

**Article 12: Insurance**

As per general conditions

**Article 13: Performance Programme (Timetable)**

The requested system should reach the Malta Gaming Authority by not later than three (3) weeks from date of signing of contract.

**Article 14: Contractor's Drawings/Diagrams**

As per general conditions.

**Article 15: Tender Prices**

As per general conditions.  
The Tender Price is to be all inclusive.

**Article 16: Tax and Customs Arrangements**

As per general conditions.

**Article 17: Patents and Licences**

As per general conditions

**Article 18: Commencement Order**

On the signing of contract.

**Article 19: Period of Execution of Tasks**

The Contractor is expected to start fulfilling the contract obligations upon last signature of the contract. Further to the provisions of the General Conditions, the period of execution of the contract shall be of 3 years.

The Contracting Authority reserves the right to cancel the contract should the selected economic operator fail to provide the products within three (3) weeks from date of order or fails to provide the requested support.

**Article 22: Modification to the Contract**

As per General Conditions

**Article 24: Quality of Supplies**

System supplied shall be tested for technical and software verification. Should the Malta Gaming Authority find that any part of the system is not fully compliant, it shall be returned to Contractor for either rectification or replacement depending on the detected fault.

**Article 25: Inspection and Testing**

System should be delivered and inspected at the Malta Gaming Authority.

**Article 26: Methods of Payment**

Payments will be made in Euro.

Payments shall be authorized by the Malta Gaming Authority.

**Article 28: Delayed Payments**

28.1 The Contracting Authority shall pay the contractor sums due within 60 days of the date on which an admissible payment is registered, in accordance with Article 26 of these Special Conditions. This period shall begin to run from the approval of these documents by the competent department referred to in Article 26.1 of these Special Conditions. These documents shall be approved either expressly or tacitly, in the absence of any written reaction in the 30 days following their receipt accompanied by the requisite documents.

28.2 Once the deadline laid down in Article 28.1 has expired, the Contractor may, within two (2) months of late payment, claim late-payment interest:

- a) meaning simple interest for late payment at a rate which is equal to the sum of the reference rate and at least eight percent (8%);
- b) on the first day of the month in which the deadline expired.

The late-payment interest shall apply to the time which elapses between the date of the payment deadline (exclusive) and the date on which the Contracting Authority's account is debited (inclusive).

**Article 29: Delivery**

- 29.1 Further to the provisions of the General Conditions, the Contractor shall bear all risks relating to the supplies until provisional acceptance at destination. The supplies shall be packaged so as to prevent their damage or deterioration in transit to their destination.

The packaging shall become the property of the Contracting Authority subject to respect for the environment.

**Article 31: Provisional Acceptance**

As per General Conditions

**Article 32: Warranty**

This warranty shall remain valid for three (3) years from date of delivery. This shall also cover spare parts and labour.

**Article 33: After-Sales Service**

The contractor shall provide and secure the provision of reliable and regular after-sales for a period of 3 years. The contractor should provide different levels of support and cater for high priority, medium priority and low priority faults including the respective SLA.

**Article 35: Breach of Contract**

Without prejudice to the Government's right to dissolve 'ipso jure' the contract in the case of infringement of any condition thereunder and apart from the deduction established for delay in delivery, any such infringement shall render the contractor, in each case, liable to a deduction by way of damages of 5 per cent of the value of the contract, unless the Government elects, with regard to each particular infringement, but not necessarily with regard to all infringements, to claim actual damages incurred.

**Article 41: Dispute Settlement by Litigation**

If no settlement is reached within 120 days of the start of the amicable dispute-settlement procedure, each Party may seek:

- (a) either a ruling from a national court, or
- (b) an arbitration ruling, in the case where the parties i.e. the contracting Authority and the Contractor, by agreement decide to refer the matter to arbitration.

## SECTION 4 - TECHNICAL SPECIFICATIONS/TERMS OF REFERENCE (Note 3)

### 1. Background Information

#### 1.1 - *Beneficiary Country*

Malta.

#### 1.2 - *Central Government Authority*

Department of Contracts.

#### 1.3 - *Contracting Authority*

Malta Gaming Authority

### 2. Contract Objectives and Expected Results

#### 2.1 - *Overall Objectives*

The overall objectives of the project of which this contract will be a part are as follows:

The supply and implementation of a network analysis tool with machine learning and artificial intelligence.

- To implement a network analysis tool which highlights network security risks instantly, in real-time, and meets the statement of requirements below. Such system should be able to spot patterns and prevent cybercrimes before they occur.
- The selected system must be an off-the-shelf product.
- The selected system must be user friendly.
- The selected system must display threats and issues using a risk-based approach.
- The selected system must have oversight of the entire network (east-west and north-south traffic).
- Any newly installed equipment should be professionally installed and commissioned. This should include testing to ensure that the equipment is operating effectively and performance levels are as expected.
- Must include full detailed documentation including but not limited to, configuration and training manuals.
- System(s) is/are fully secure, and free from risks and vulnerabilities as far as is reasonable to expect.



## 2.2 - Specific Objectives

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Network analytical security software</b><br/>Hardware appliance must monitor corporate network activity in real time, identify potential cyber threats and network anomalies, and create instant alerts when these are identified.</p>                                                                                                                                                                                                                                                       |
| <p><b>Network based-solution with full traffic inspection</b><br/>The network traffic analysis capabilities should rely solely on mirrored network traffic (not NetFlow, IPFIX, and/or similar protocols) without the need to deploy agents on endpoints or other network nodes/hosts.</p>                                                                                                                                                                                                         |
| <p><b>Network flow recording &amp; storing</b><br/>The application stores metadata information in network flows containing at least information from L2, L3, L4, and L7 network layers. A flow data history of at least 30 days must be provided and users must be able to fully search and filter this historical data.</p>                                                                                                                                                                       |
| <p><b>Comprehensive device and service connectivity monitoring</b><br/>The application must identify devices connected to our network including: laptops, mobiles, wireless access points etc. Also, it must be able to identify such events as changed/duplicated IP or MAC address, connection of new host in monitored segments, critical services that are down, usage of forbidden services, etc.</p>                                                                                         |
| <p><b>Self-learning (Unsupervised)</b><br/>The application must be capable of unsupervised self-learning (using advanced mathematics) of standard network activity and adaptive to organisational normal business, and capable of recognizing non-standard network activity. At least the following anomalies/outliers should be detected: anomalous data transfer, high number of communication partners, ports entropy, high number of flows, application and network performance anomalies.</p> |
| <p><b>Supervised learning and event correlation</b><br/>The application must be capable of manual adaptation of unsupervised learning through granular means by end users. Also, the application must be able to correlate events detected through its various detection methods.</p>                                                                                                                                                                                                              |
| <p><b>The ability to identify zero-day threats and machine behaviour</b><br/>Detect threats that would not be identified by standard signatures, and detect communication of trojans, botnets etc. through including but not limited to:</p> <ul style="list-style-type: none"> <li>• detection of network reconnaissance</li> <li>• potential data leaks</li> <li>• detection of machine behaviour created by non-human elements inside the monitored network</li> </ul>                          |
| <p><b>Highlight suspicious activities based on behaviour patterns</b><br/>The application must be able to highlight suspicious activities like repetitive patterns in communication, port scanning techniques, brute-force attempts, etc.</p>                                                                                                                                                                                                                                                      |
| <p><b>Deep Packet Inspection</b><br/>Detection of services based on DPI, not only by port number, e.g. detection of HTTPS on port 80 or SSH on port 443. Recognition of tunneled or encapsulated communication, e.g. ipv6 in ipv4, GRE etc. Collected metadata must contain at least application metadata for these protocols: HTTP, DNS, DHCP, TLS, SSH, MS-SQL, SMTP, FTP.</p>                                                                                                                   |
| <p><b>Packet capture</b><br/>On-demand and packet capture-based recording of network traffic configured with source and destination IP, MAC, subnet, protocol, port, IP family (IPv4, IPv6).</p>                                                                                                                                                                                                                                                                                                   |
| <p><b>Blacklists</b><br/>Application should cater for multiple IP blacklist with automatic updates for IP reputation databases.</p>                                                                                                                                                                                                                                                                                                                                                                |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Packet analysis over multiple subnets</b><br/>The application should analyse data packets in real time and operate within different subnets. It must be able to inspect packet metadata regardless of protocol or application by DPI engine.</p>                                                                                                                                                                                                                                                                |
| <p><b>Proxy visibility</b><br/>The application must be able to provide also direct visibility to destination IP address from source hosts, when HTTP proxy server is in use according to X-Forwarding-for item included in HTTP headers.</p>                                                                                                                                                                                                                                                                          |
| <p><b>Provide threat alerts and automatic reports in real time</b><br/>Application must be able to provide email alerting based on filter (e.g. IP or MAC address, event, severity, user, service, port number etc.). Alerts can be also exported to external systems (e.g. SIEM) in syslog configurable format.</p>                                                                                                                                                                                                  |
| <p><b>Single graphical user interface</b><br/>The application must be accessible and manageable of a single graphical user interface. Users must be able to customize their own dashboards and filters.</p>                                                                                                                                                                                                                                                                                                           |
| <p><b>Searching and filtering of events, flow information and aggregated statistics</b><br/>The application must be able to search and filter detected events, network flow information, and aggregated flow statistics at least by the following parameters: IP address, MAC address, hostname, username, local or remote service, inbound and outbound traffic, port, network service, autonomous system number, VLAN ID, and country. Custom created filters must be able to be stored and shared among users.</p> |
| <p><b>User profiles</b><br/>The application must allow for creation of user access rights (read only, read-write, none) for individual users and groups of users, administration functions, and segments of the network.</p>                                                                                                                                                                                                                                                                                          |
| <p><b>Contextual Awareness</b><br/>The application must be able to pull, visualize and integrate contextual information for detected events and internal and external addresses into the graphical user interface. Minimum the following is required:</p> <ul style="list-style-type: none"> <li>• User names and user credentials from Domain Controller</li> <li>• Display of DNS names</li> <li>• IP Geolocation</li> <li>• IP Reputation, including if an IP is blacklisted</li> </ul>                            |
| <p><b>Event management</b><br/>The application must provide tools for collaboration on threat detection and response between different users.</p>                                                                                                                                                                                                                                                                                                                                                                     |
| <p><b>Documentation</b><br/>The supplier shall provide up to date comprehensive installation, configuration, administration and user documentation in electronic format</p>                                                                                                                                                                                                                                                                                                                                           |
| <p><b>Data Store</b><br/>All of the data should be stored and processed locally on the appliance, and not in a 'cloud' or shared customer database.</p>                                                                                                                                                                                                                                                                                                                                                               |
| <p><b>Project Management</b><br/>The supplier shall provide details about the project management approach and also timeline for deliverables (including installation, configuration, training etc)</p>                                                                                                                                                                                                                                                                                                                |
| <p><b>Risk Management</b><br/>The supplier shall indicate any risk assumptions taken and provide them accordingly</p>                                                                                                                                                                                                                                                                                                                                                                                                 |

### 3. Assumptions and Risks

3.1 No assumptions are foreseen.

## **4. Scope of the Work**

### **4.1 - General**

#### **4.1.1 Project Description**

*The Authority would like to implement a network analysis tool which highlights network security risks instantly in real time. The idea is to have an Artificial Intelligence system which can run unsupervised to spot patterns and prevent cybercrimes before they occur.*

#### **4.1.2 Geographical Area to be covered**

Local

#### **4.1.3 Target Groups**

MGA Internal network

### **4.2 - Specific Activities**

The bidder shall be able to provide support, maintenance and repair services on demand. The bidder shall provide for the training of staff as to the utilisation of the tool.

### **4.3 - Project Management**

#### **4.3.1 Responsible Body**

Malta Gaming Authority

#### **4.3.2 Management Structure**

*The project shall fall under the responsibility of the IT Manager or his delegate.*

#### **4.3.3 Facilities to be provided by the Contracting Authority and/or other parties**

The contractor shall have all facilities of the Contracting Authority at its disposal in so far as it is necessary for the Contractor to analyse, study, gain insight for the realization of the project in caption.

## **5. Logistics and Timing**

### **5.1 - Location**

The Contractor shall install such a system within the MGA premises but can also carry out any other work such as configuration remotely.

### **5.2 - Commencement Date & Period of Execution**

Article 19 of the Special Conditions will determine the actual commencement date and period of execution.

## **6. Requirements**

### **6.1 - Personnel and Key Experts**

#### **6.1.1 Other Experts**

CVs for experts other than the key experts are not examined prior to the signature of the contract.

The Consultant shall select and hire other experts as required according to the profiles identified in the Organisation & Methodology and / or these Terms of Reference.

All experts must be independent and free from conflicts of interest in the responsibilities accorded to them.

The selection procedures used by the Consultant to select these other experts shall be transparent, and shall be based on pre-defined criteria, including professional qualifications, language skills and work experience. The findings of the selection panel shall be recorded. The selection of experts shall be subject to approval by the Contracting Authority.

### **6.3 - Facilities to be provided by the Consultant**

The Consultant shall ensure that experts are adequately supported and equipped. In particular, it shall ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities. It must also transfer funds as necessary to support its activities under the contract and to ensure that its employees are paid regularly and in a timely fashion.

If the Consultant is a consortium, the arrangements should allow for the maximum flexibility in project implementation. Arrangements offering each consortium partner a fixed percentage of the work to be undertaken under the contract should be avoided.

## **7. Reports**

### **7.1 - Reporting Requirements**

There must be a final progress report and final invoice at the end of the period of execution. The draft final progress report must be submitted at least one month before the end of the period of execution of the contract.

### **7.2 - Submission & Approval of Progress Reports**

copies of the progress reports referred to above must be submitted to the Project Manager identified in the contract. The progress reports must be written in English. The Project Manager is responsible for approving the progress reports.

## SECTION 5 – SUPPLEMENTARY DOCUMENTATION

### ***5.1 - Draft Contract Form***

### ***5.2 - Glossary***

### ***5.3 - Specimen Performance Guarantee***

These are available to view and download from the 'Resources Section' at: [www.etenders.gov.mt](http://www.etenders.gov.mt)

### ***5.4 - General Conditions of Contract***

The full set of General Conditions for Works Contracts (Version 2.2), for Supplies Contracts (Version 2.2) and for Services Contracts (Version 2.2) can be viewed/downloaded from the 'Resources Section' at: [www.etenders.gov.mt](http://www.etenders.gov.mt)

It is hereby construed that the tenderers have availed themselves of these general conditions, and have read and accepted in full and without reservation the conditions outlined therein, and are therefore waiving any standard terms and conditions which they may have.

These general conditions will form an integral part of the contract that will be signed with the successful tenderer/s.

## Financial Offer

### FINANCIAL BID

#### Breakdown of Costs

**Tender Title** Tender for the implementation of A network analysis tool with Machine Learning and Artificial Intelligence  
**Reference Number** MGA/04/2017

| Item No                                                                                                                                                                                                          | Description                                                 | Quantity   | Unit Cost including Taxes/Charges, other Duties & Discounts <u>but</u> Exclusive of VAT (Delivered Duty Paid - DDP)<br>€ | Total including Taxes/Charges, other Duties & Discounts <u>but</u> Exclusive of VAT (Delivered Duty Paid - DDP)<br>€ |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                  | Network Monitoring Tool including Software                  | (Lump sum) |                                                                                                                          |                                                                                                                      |
|                                                                                                                                                                                                                  | Yearly support and maintenance + One Time Training proposal | (Lump sum) |                                                                                                                          |                                                                                                                      |
|                                                                                                                                                                                                                  |                                                             |            |                                                                                                                          |                                                                                                                      |
|                                                                                                                                                                                                                  |                                                             |            |                                                                                                                          |                                                                                                                      |
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|                                                                                                                                                                                                                  |                                                             |            |                                                                                                                          |                                                                                                                      |
|                                                                                                                                                                                                                  |                                                             |            |                                                                                                                          |                                                                                                                      |
| <b>GRAND TOTAL INCLUDING TAXES/CHARGES, OTHER DUTIES &amp; DISCOUNTS <u>BUT</u> EXCLUSIVE OF VAT (DELIVERED DUTY PAID - DDP)</b><br><b>CARRIED FORWARD TO FINANCIAL SECTION OF ONLINE TENDER RESPONSE FORMAT</b> |                                                             |            |                                                                                                                          |                                                                                                                      |

*N.B Three decimal points do not exist as currency; therefore such offers cannot be accepted. Offers are to be submitted up to two decimal points.*

## LITERATURE LIST

**List of literature to be submitted within 5 days from when notified to do so:**

*(The number of days is to be determined by the CA in accordance to the circumstances and nature of the procurement)*

| Item | Description                                                                                                        | Reference in Technical Specifications |
|------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| 1.1  | Comprehensive installation, configuration, administration documentation including screenshots in electronic format | 2.1                                   |
| 1.2  | Comprehensive user documentation including screenshots in electronic format                                        | 2.1                                   |
| 1.3  |                                                                                                                    |                                       |
| 1.4  |                                                                                                                    |                                       |
| 1.5  |                                                                                                                    |                                       |
| 1.6  |                                                                                                                    |                                       |