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Gatineau, Québec K1A 0S5  
Bid Fax: (819) 997-9776

**SOLICITATION AMENDMENT**  
**MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address  
Raison sociale et adresse du  
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution  
Electrical & Electronics Products Division  
11 Laurier St./11, rue Laurier  
7B3, Place du Portage, Phase III  
Gatineau, Québec K1A 0S5

<b>Title - Sujet</b> Closed Circuit Television (CCTV)	
<b>Solicitation No. - N° de l'invitation</b> 21120-141538/A	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> 21120-14-1991538	<b>Date</b> 2014-04-30
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$HN-313-64788	
<b>File No. - N° de dossier</b> hn313.21120-141538	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2014-05-07</b>	
<b>F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input checked="" type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Kelly, Ruth	<b>Buyer Id - Id de l'acheteur</b> hn313
<b>Telephone No. - N° de téléphone</b> (819) 956-3588 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

Instructions: See Herein

Instructions: Voir aux présentes

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
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<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

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This amendment is created to address the following:

1) Questions raised by potential bidders. The questions appear in their original format and language, responses from the Technical Authority are in ***Bold Italic***.

2) To add a training portion to the requirement.

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Q1) As noted in the STR, Genetec is specified for the software platform, shall the supplier of the Genetec software be certified by Genetec to perform the installation of the VMS software?

***A1) Answer, yes.***

Q2 – It is noted that 17” monitors are requested but can 22” LCD monitors be provided, providing they adhere to ES/STD-0227 specifications are adhered too?

***A2) Answer, yes.***

Q3 – Can you please confirm that the minimum requirements for a network switch shall have at the minimum the following specifications:

***A3) Answer, all network switches shall meet the minimum listed below.***

- ***24 Gigabit Ethernet ports***
- ***L2 Enterprise Switching***
- ***1G Small Form-Factor Pluggable (SFP) or 1G/10G SFP+ slots***
- ***Cisco FlexStack stacking with 20 Gbps of stack throughput (optional)***
- ***IEEE 802.3at-compliant PoE+ for up to 30W of power per port***
- ***Up to 740W of combined PoE/PoE+ budget***
- ***USB interfaces for management and file transfers***
- ***LAN Base or LAN Lite Cisco IOS® Software feature set***
- ***SmartOperations tools that simplify deployment and reduce the cost of network administration***
- ***An enhanced limited lifetime hardware warranty (E-LLW), providing next-business-day replacement***

Q4) Can you please confirm that the video codec shall be H.264 or MJPEG for the 30 Day recording? If H.264, please confirm that the key frame is to be at most 1 second on recording and live video at SVGA (800 x 600).

**A4) Answer, All cameras shall use the H.264 codec and configured as follows:**

- .1 maximum available camera resolution;**
- .2 H.264 video encoding CODEC;**
- .3 encoding quality/quantization level of approximately 70% (100% is highest quality);**
- .4 30 frames per second;**
- .5 1 key frame per second;**
- .6 Be recorded for a minimum of 30 days**

**Note to Bidders: All cameras shall meet specifications as defined in ES/STD-0232R1 Fixed Network Colour Dome Camera.**

Q5) The Spec says: 4.0 Technical requirements  
4.1 System Installation

The contractor shall provide, install and test a Genetec Omnicast IP Video Management system. The video management system shall consist of three (3) external cameras, four (4) internal cameras, one (1) network video user station complete with two (2) monitors, one (1) network video recorder and an uninterrupted Power Supply (UPS) with a back time of one (1) hour. The video from all of the new cameras shall be connected to and recorded by the network video recorder for a minimum period of 720 hours, assuming 3500 kbits per second, per camera. Recording redundancy is not required. The contractor shall supply all required licenses.

**A5) Answer, 720hrs at 3500 kbits per second. The spec for an NVR (ES/STD-00229) states under section 7.7, RAID5: Internal Storage be 4TB RAID5, as a minimum.**

**Q6) Does the Parrtown STR supersede the requirements of ES/STD-00229?**

**A6) Storage clarification requirements were answered for and earlier submitted question as being.**

- .1 maximum available camera resolution;**
- .2 H.264 video encoding CODEC;**
- .3 encoding quality/quantization level of approximately 70% (100% is highest quality);**
- .4 30 frames per second;**
- .5 1 key frame per second;**
- .6 Be recorded for a minimum of 30 days.**

**Conflicting specifications between ES/std-0229 and STR with regards to the above requirements, the above requirements supersede the ES/STD-0229 and STR.**

**Q7) For the NVR will a Pivot 3 vSTAC WATCH be a suitable NVR Solution ?**

**A7) Answer, if it meets all requirements contained in the STR and specifications there in.**

**Q8) Under the Specification ES/STD-0229 7.12 Calls for "Message to FAAS when NVR stops recording for any reason. This site does not have a FAAS I'm assuming that this requirement can be ignored?**

**A8) Answer, Answer, Yes this requirement does not apply to CCC facilities.**

**Q9) From ES/STD-0204 and ES/STD-0221 Mount: standard C-mount or CS-mount; Can this be varied from? Most IP CCTV dome cameras do not use this mount type?**

**A9) Answer, ES/STD-0204 and ES/STD-0221 to be replace with STO232R1E.**

**Q10) From ES/STD-0229, 7.13 Fail-Over Archiving To be provided (The RAID 5 feature of the NVR is NOT considered redundant archiving. Additional archiver(s) that will automatically take over recording of the cameras assigned to an NVR that has completely or partially failed, in excess of a single RAID Drive, must be provided.) 7.14 Fail-Over Directory To be provided (The Fail-Over Directory may reside on the Fail-Over Archiver). It was my understanding from the site meeting there was no fail over archiving. Did I miss-understand this or has this requirement been removed? Fail over archiving will require an additional machine an there is limited space for a rack?**

**A10) Answer, ES/STD-0229 7.13 and 7.14 does not apply to Community Correctional Center. The Genetec software for use in CCCs does not require any failover capabilities.**

**Q11) The Statement of Technical Requirements Installation of Closed Circuit Television Systems at Parrtown Correction Facilities states on page 10 section 4.6 that the cabinets will be floor mounted?**

**A11) Answer, Due to space available a wall mounted cabinet is acceptable.**

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Q13) (4.5) Uninterruptible Power Supplies: The contractor shall provide and install UPS in sufficient capacity and quantity to provide a minimum of one (1) hour emergency backup power to all new equipment. The UPS shall be installed in a wall mount cabinet; the cabinet is to be installed the Duty Room 103. Is this UPS to back up all new equipment including the 2 new monitors or is it only to back up the equipment in the rack (NVR, POE switch, etc)?

***A13) Answer, UPS backup power to include rack mounted equipment only.***

Q14) (4.6) Electronic Equipment Cabinets: The contractor shall provide one (1) cabinet necessary to house all of the new equipment. The floor mounted cabinets shall be supplied and fitted as follows. It was my understanding from the site visit that the cabinet will be wall mounted above the cupboard in the Duty office room 103 and that Corrections will have the cupboard lowered if need be. Will this be stated in an addendum? The above statement contradicts the statement in 4.5 (above).

***A14) Answer, due to limited available space, a wall mounted cabinet is acceptable. CSC will lower the existing "cupboard," should additional wall space be required to mount the electronic equipment cabinet.***

Q15) (4.9) AC Circuits: The contractor shall supply and install sufficient 120 VAC circuits to power all of the new equipment. The contractor shall supply and install sufficient AC receptacles to accommodate all of the new equipment installed under this project, unless approved by the site authority. New equipment shall not be powered from existing receptacles and circuits. Home and office type power bars are not permitted. The electrical panel from where power is to be supplied is full. If the electrician is not able to rearrange circuits in order to provide a dedicated electrical circuit from this panel it was stated that will be addressed at the time of install. Will this be clarified in an addendum?

***A15) Answer, Submit a bid with the understanding that circuits can be rearranged to meet the requirement as per 4.9. Should the power panel need to be upgraded, this will be addressed as an amendment to any future contract.***

Q16) It was stated during the site visit that the building measurements will be provided in an addendum.

***A16) Answer, please refer to attached level 1- Ground floor.pdf drawing for building measurements.***

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2) At page 14 of the STR, under sec 5.0 Additional Requirements:

**DELETE:** 5.1 Operator Training

**INSERT:** 5.1A Operator Training

The Contractor shall prepare and present a two hour operator training session to individuals responsible for the operation of the equipment, in accordance with the specifications ES/SOW-0101 Statement of Work. The course shall concentrate on the features and proper operation of the installed system.

#### 5.1B Maintenance Training

The contractor shall prepare and present a two-day training session, to individuals responsible for the maintenance of the equipment, in accordance with the specification ES/SOW-0101 Statement of Work. The training session shall be provided to one group of seven technicians in English. The course shall concentrate heavily on the material contained in the technical manual and as-built drawings. The course shall be presented on the site within two weeks of the successful acceptance testing of the system.

**ALL REMAINING TERMS AND CONDITIONS ARE UNCHANGED**



**CORRECTIONAL SERVICES CANADA  
TECHNICAL SERVICES BRANCH  
ELECTRONIC SECURITY SYSTEMS**



ES/STD-0232  
Revision 1  
2014 February 18

**ELECTRONIC ENGINEERING STANDARD  
FIXED NETWORK COLOUR DOME CAMERA  
FOR USE IN FEDERAL CORRECTIONAL INSTITUTIONS**

**AUTHORITY**

Acquisition of a camera for the identified purposes that is not in compliance with this standard must be approved by the Design Authority.

Recommended corrections, additions or deletions should be addressed to the Design Authority at the following address:

Director, Electronic Security Systems  
Correctional Service of Canada  
340 Laurier Avenue West,  
Ottawa, Ontario  
K1A 0P9

Prepared by:

Electronic Systems Engineer,  
Electronics Security Systems

Approved by:

Director,  
Electronic Security Systems

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**TABLE OF REVISIONS**

<b>Revision</b>	<b>Paragraph</b>	<b>Comment</b>
0	N/A	Original
1	All	New structure and change to merge indoor and outdoor.

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### TABLE OF ABBREVIATIONS

Abbreviation	Expansion
AGC	Automatic Gain Control
CB	Citizen's Band
CSC	Correctional Service Canada
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
MJPEG	Motion Joint Photographic Experts Group
MTBF	Mean Time Between Failures
ONVIF	Open Network Video Interface Forum
PoE	Power over Ethernet
TCP/IP	Transmission Control Protocol/Internet Protocol
UHF	Ultra High Frequency
VHF	Very High Frequency

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**TABLE OF DEFINITIONS**

<b>Term</b>	<b>Definition</b>
Design Authority	Director, Electronic Security Systems

## 1 INTRODUCTION

### 1.1 Overview

- .1 This standard defines the requirements of Correctional Service Canada (CSC) for a fixed focus, network capable, dome camera for use at federal correctional institutions.

### 1.2 Purpose

- .1 The cameras are deployed for both observation and evidentiary use.
- .2 These cameras are for deployment for all outdoor fixed camera locations **except**:
  - .1 facility perimeter;
- .3 These cameras are for deployment for all indoor fixed camera locations **except**:
  - .1 observation cells;
  - .2 principal entrance panoramic;

## 2 REFERENCES

### 2.1 Specifications, Standards, and Statements of Work

- .1 Access to non-government specifications is the responsibility of the contractor.

Number	Title
IEC EN60529	International Electrotechnical Commission Degrees of protection provided by enclosures (IP Code)
IEC EN60950-1	International Electrotechnical Commission Information technology equipment – Safety
IEC EN62262	International Electrotechnical Commission Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts
IEEE 802.3at	IEEE Standard for Information technology – Telecommunications and information exchange between systems – Local and metropolitan area networks – Specific requirements Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications Amendment 3: Data Terminal Equipment (DTE) Power via the Media Dependent Interface (MDI) Enhancements
IEEE 802.3u	IEEE Standards for Local and Metropolitan Area Networks: Supplement to Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications Media Access Control (MAC) Parameters, Physical Layer, Medium Attachment Units, and Repeater for 100 Mb/s Operation, Type 100BASE-T

### 3 PHYSICAL

#### 3.1 Dimensions

- .1 The camera case and dome must:
  - .1 measure a base diameter less than 200mm;
  - .2 measure from base to top of dome of less than 175mm excluding any mount;
  - .3 weigh less than 2.5kg;

#### 3.2 Environment

- .1 The camera case and dome must:
  - .1 meet or exceed IEC EN60529 IP66 dust and water resistance when mounted;
  - .2 meet or exceed IEC EN62262 IK10 impact resistance;
  - .3 have threaded openings for conduits;
  - .4 have a threaded plug to seal all unused openings;
  - .5 have set-screws to secure all conduit and plugs from inside the dome;
  - .6 have tamper resistant heads on all externally accessible screws;
  - .7 have a permanently affixed label on the interior of the unit which identifies the manufacturer, the model or assembly number, the serial number and the power requirement;
  - .8 have a permanently affixed label on the exterior of the unit which identifies the manufacturer, the model or assembly number, the serial number and the power requirement;
- .2 The camera must:
  - .1 be capable of continuous operation;
  - .2 start and operate from -40°C to 50°C;
  - .3 start and operate from 0 to 100% condensing humidity;

#### 3.3 Interference

- .1 The camera must operate correctly in the presence of:
  - .1 5 watt CB transceiver at 1 metre or more;
  - .2 6 watt VHF and UHF transceivers at 1 metre or more;
  - .3 25 mW 400-450 MHz Personal Portable Transmitters at 1 metre or more;
  - .4 Other radio frequency transmitting, receiving, and distribution equipment at 5 metres or more;
  - .5 Computer work stations at 5 metres or more;

#### 3.4 Reliability

- .1 The camera must have an MTBF of at least 25,000 hours.

#### 3.5 Safety

- .1 The camera must meet IEC 60950-1 or the CSA equivalent.

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## 4 OPERATIONAL

### 4.1 Camera

- .1 The camera must retain its configuration over a power cycle.
- .2 The image sensor must:
  - .1 include automatic or remote back focus;
  - .2 have a minimum of 480,000 pixels (horizontal x vertical);
  - .3 have day (colour) and night (black and white) modes;
  - .4 automatic removable infrared cut filter for day/night transition;
  - .5 have 0.5 lux or less minimum illumination for day mode;
  - .6 have 0.1 lux or less minimum illumination for night mode;
  - .7 include Automatic Gain Control (AGC);
  - .8 include extended dynamic range processing;

### 4.2 Lens

- .1 The camera lens must:
  - .1 have a 35° to 80° or greater horizontal angular view varifocal lens
  - .2 be approved by the manufacturer of the camera for that camera;

### 4.3 Video

- .1 The video encoding must:
  - .1 support H.264 configurable I-frame frequency of at least 3 per second;
  - .2 support H.264 constant bit rate transmission mode;
  - .3 support H.264 frame rate transmission mode;
  - .4 support at least 3 levels of H.264 image quality;
  - .5 support at least 3 levels of MJPEG image quality;
- .2 The video output must:
  - .1 include an on-screen, programmable character generation overlay capability with a minimum of 8 visible characters;
  - .2 support at least two simultaneous H.264 video streams at 30 frames per second with at least 480,000 pixel resolution;
  - .3 support at least two simultaneous video streams, one H.264 and one MJPEG at 15 frames per second with at least 480,000 pixel resolution;

## **5 INTERFACE**

### **5.1 Ports**

- .1 The camera must:
  - .1 interface over IPV4 TCP/IP;
  - .2 be able to operate on 100Base-TX (IEEE 802.3u);
  - .3 connect using an RJ-45 connector;
  - .4 be ONVIF compliant;

### **5.2 Power**

- .1 The camera must be a Type 1 powered device operating solely from Power over Ethernet (PoE) compliant with IEEE 802.3at Class 0, 1, 2, or 3.

### **5.3 Video Management System Compatibility**

- .1 The camera model must be identified as “Certified” or “Supported by Design” in the Genetec Omnicast Supported Hardware camera list.

