Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada

RETURN BIDS TO:
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Place du Portage, Phase III
Core 0A1 / Noyau 0A1
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

Title - Sujet NMSO - COMPUTERS	
Solicitation No. - N° de l'invitation E60EJ-11000C/N	**Date** 2013-09-06
Client Reference No. - N° de référence du client E60EJ-11000C	**Amendment No. - N° modif.** 003
File No. - N° de dossier 436ej.E60EJ-11000C	**CCC No./N° CCC - FMS No./N° VME**

GETS Reference No. - N° de référence de SEAG PW-$$EJ-436-26154

Revision to a Request for a Standing Offer

Révision à une demande d'offre à commandes

National Master Standing Offer (NMSO)

Offre à commandes principale et nationale (OCPN)

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

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

Comments - Commentaires

Date of Original Request for Standing Offer **Date de la demande de l'offre à commandes originale**	2013-06-19

Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2013-09-11	**Time Zone** **Fuseau horaire** Eastern Daylight Saving Time EDT
Address Enquiries to: - Adresser toutes questions à: You, Soun	**Buyer Id - Id de l'acheteur** 436ej
Telephone No. - N° de téléphone (819) 956-8287 ( )	**FAX No. - N° de FAX** ( ) -

Delivery Required - Livraison exigée

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:

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

Security - Sécurité

This revision does not change the security requirements of the Offer.

Cette révision ne change pas les besoins en matière de sécurité de la présente offre.

Instructions: See Herein

Instructions: Voir aux présentes

Issuing Office - Bureau de distribution
Acquisition Branch, STAMS, ITSPD / Direction générale des acquisitions, SGAST, DASIT
Computer Hardware Division
Div. de l'équipement informatique
Place du Portage, Phase III, 4C2
11 Laurier Street/11, rue Laurier
Gatineau
Québec
K1A 0S5

Acknowledgement copy required **Accusé de réception requis**	**Yes - Oui**		**No - Non**

The Offeror hereby acknowledges this revision to its Offer.
Le proposant constate, par la présente, cette révision à son offre.

Signature	**Date**

Name and title of person authorized to sign on behalf of offeror. (type or print)
Nom et titre de la personne autorisée à signer au nom du proposant.
(taper ou écrire en caractères d'imprimerie)

For the Minister - Pour le Ministre

Canadä

Solicitation No. - N° de l'invitation	Amd. No. - N° de la modif.	Buyer ID - Id de l'acheteur
E60EJ-11000C/N	003	436ej
Client Ref. No. - N° de réf. du client	File No. - N° du dossier	CCC No./N° CCC - FMS No/ N° VME
E60EJ-11000C	436ejE60EJ-11000C	

This amendment contains the following sections:

1. Revision summary
2. Revised Annexes A and B

Note: Changes to the documents are yellow highlighted. Deletions are shown in "strikethrough" text.

Revised versions replace previous version in their entirety.

1- At Annex A, section 3.2, article (a), paragraph (iv) - CHANGE TO:
 (iv) Wireless variation for just the English layout.

2- Annex B, Line 50 - "Wireless TBITS" - DELETE IN ITS ENTIRETY

ANNEX A: TECHNICAL SPECIFICATIONS - DESKTOP AND WORKSTATION

1.0   INTRODUCTION

This document addresses the requirements that apply to the following categories:

4.0D   3D Simulation Workstation

2.0   CONFIGURATIONS

Systems must meet or exceed the technical specifications outlined in this Annex. So that we satisfy a variety of client expectations the bidder must provide the identical configurations only with variations on processors, video controllers, PSUs and storage devices. Those are detailed in Annex B (LOD) under "System Right-Sizing".

2.1   CATEGORY 4.0D – HIGH PERFORMANCE 3D SIMULATION DESKTOP COMPUTER

(a)   **Processor and Chip Set**

(i)   The default configuration (Config A) must have a minimum Intel Core i7 3930K processor or Intel Xeon E5-2650.

(ii)   The processor must operate at the CPU manufacturer's specified megahertz frequency or rated speed, and return these results when queried with the CPU identification utility.

(iii)   Processor specifications, features and values must be identical to the manufacturer's published "reference design" standard. Specifications and values may not be achieved through over-clocking or other means that depart from the manufacturer's published "reference design" standard.

(iv)   The chip set must be the Intel X79 or Intel C600 series, workstation chip set.

(v)   Should a product that is based on AMD architecture be proposed for substitution during the life of the NMSO, that product must meet or exceed the offering that is being replaced. Canada reserves the right to make that determination at that time.

Note: The Offeror may propose an equivalent chip set during the RFSO Q&A period. Canada reserves the right to determine the level of equivalency at that time.

(b)   **Desktop Virtualisation**

All desktop processors and chip sets must have hardware based virtualisation capabilities. For Intel based systems they must have the embedded VT-x and VT-d capabilities included.

(c)   **RAM**

(i)   16 GB of quad channel DDR3 1600 MHz RAM populated with 4x4 GB DIMMs.

(ii)   All RAM modules must be constructed of the same metal as found on the motherboard RAM module sockets. There must not be dissimilar metals (i.e. gold plated RAM module connectors and tin motherboard sockets).

(iii)   All RAM must be manufactured by an ISO (International Standards Organization) 9001 certified manufacturer. The ISO certification applies to the RAM module manufacturing process.

(iv)   All memory upgrades or their equivalents must be accessible for at least 3 years after system purchase.

(v)   All RAM must be Quad Channel Memory Architecture.

(vi)   The system must be expandable to a minimum of 64 GB of RAM.

(d)   **Internal High Performance Solid State Disk (SSD) and controller**

(i)   SSD must be minimum 240 GB with a SATA 3.0 (6 GB/s) interface.

(ii)   Hard disk must have physical bytes of storage as specified in this annex, without the use of hardware or software disk compression utilities, as actual formatted data space available to the end-user.

(iii)   The high performance SSD must specifically be one of the following: Intel SSD 520 240 GB., Crucial m4 256GB., Samsung SSD 470 256 GB., SanDisk Extreme II 240 GB., Samsung SSD 470 256 GB., Western Digital SiliconEdge Blue 256GB, Kingston HyperX SSD 240GB., Corsair Neutron GTX 240 GB.

The Offeror may propose an equivalent GPU and controller during the RFSO Q&A period. Canada reserves the right to determine the level of equivalency at that time.

(iv)   All drives must come with appropriate mounting hardware.

(e)   **Internal DVD+-R/RW DL drive with SATA interface**

(f)   **Video**

(i)   Video card specifications, features and values must be identical to the manufacturer's published "reference design" standard. Specifications and values may not be achieved through over-clocking or other means that depart from the manufacturer's published "reference design" standard.

(ii)   SLI or Crossfire capable graphics card with the following attributes at a minimum:

(A)   One PCI-Express 3.0 16x SLI video controller based on a nVidia GTX 770 SLI GPU or one PCI-Express 3.0 16x video controller based on an AMD HD 7970 Ghz Edition GPU.

> The Offeror may propose an equivalent GPU and controller during the RFSO Q&A period. Canada reserves the right to determine the level of equivalency at that time.

(B)   2.0 GB. of dedicated GDDR5 SDRAM;

(C)   Must produce a 2048x1536 maximum VGA resolution and a 4096x2160 maximum HDMI digital resolution;

(D)   Must provide 4 digital output ports;

(E)   Must support Direct X 11.0, Shader Model 5.0 and DDC/CI (Display Data Channel/Command Interface).

(g)   **Audio**

Integrated or discrete high definition audio adapter must have line out and microphone ports. Ports must appear on front of system unit.

(h)   **Integrated 10/100/1000 Base TX Ethernet adapter with remote wake up and PXE support**

(i)   Systems must come with a 10/100/1000 Mbps. (Megabits per second) 10/100/1000 TX integrated Ethernet network adapter.

(ii)   The adapter must be PnP (Plug-and-Play) compliant.

(iii)   The adapter must come with a RJ-45 port.

(iv)   The protocols supported must include TCP/IPv6.0. As a minimum a driver compatible with Windows XP Professional and Windows 7 Professional must be provided.

(v)   The adapter must support wake-up-on-LAN version 2.0.

(vi)   The adapter must support software configuration for: operation at either 10 Mbps or 100 Mbps; general setup; diagnostics.

(i)   **Security**

(i)   System must have an integrated TPM v.1.2 (Trusted Platform Module) integrated on the motherboard.

(ii)   System must have a power on password and system BIOS setup password capability.

(j)   **Ports**

(i)   The front of the case must have the following ports: 2 USB VERS. 2.0, 1 microphone, 1 headphone and 19-in-1 card reader (slot only).

(ii)   The rear or front of the case must have the following additional ports: 2 USB version 3.0, 4 additional USB vers. 2.0, 1 audio line in, 1 audio line out and 1X RJ-45 Ethernet.

(k)   **Power**

(i)   The power supply must supply a minimum 1.0 kilowatts.

(ii)   The power supply must meet the 80Plus Silver certification.

(iii)   The configuration must run support the ATX12V v2.2 standard and Universal AC input 90~264V.

(iv)   The PSU must supply four (4) 6-pin PCI-E receptacles and support the SLI or Crossfire video controllers specified in this annex.

(v)   The power supply must adequately power a fully populated system (i.e. all drive bays populated, the maximum RAM expansion and 3 SLI or Crossfire video controllers as specified in this annex).

(vi)   It must operate in temperature and humidity conditions of the normal business office environment, with no special air conditioning required.

(vii)   All external cabling must be positively secured and resistant to damage.

(viii) The power supply must support the Wake Up On LAN feature specified in this annex.

(ix)   There must be sufficient power supply cabling for each vacant drive bay supplied in the chassis.

(l)   **Case/ Chassis and Motherboard**

(i)   The motherboard must have 4 expansion slots including a minimum of 2 PCI-e 16x vers 3.0 and 2 PCI-e vers. 2.0.

(ii)   The motherboard must be certified as Nvidia SLI ready or AMD Crossfire ready.

(iii)   The external or internal openings to all expansion and DIMM slots (mandatory or otherwise) must not be blocked (e.g. ribbon cable, drive cable, etc.).

(iv)   The case must be a tower form factor case of no less than 13 inches tall and have 2 x 5 1/4 inch internal drive bays with frontal access and 3 x 3 1/2 inch internal hard drive bays after configuration as specified herein.

(v)   The case must stand vertically and must situate the optical drive(s) in a horizontal attitude.

(vi)   The separate rear port bezel (if offered) must be appropriate to the ports supplied. There must be no vacant ports, concealed or otherwise, following the default systems' assembly.

(vii)   If the system includes a hardware-reset switch it must be designed with sufficient protection to prevent accidental switching.

(viii) ~~The case must include a chassis intrusion switch that, when the cover is removed a CIM based chassis intrusion alert is generated.~~

(ix)   The case must have a means of locking, either by padlock rings integral to the case or an internal case lock with key or a BIOS controlled internal case lock.

(x)   The case must include a Kensington lock slot.

3.0   INPUT/OUTPUT DEVICES

3.1   TFT LCD COLOUR DISPLAYS

(a)   **All TFT (Thin Film Transistor) LCD (Liquid Crystal Display) colour displays must:**

    (i)   employ LED (Light Emitting Diode) back-lighting technology (either edge-lit or RGB back-lit);

    (ii)   employ IPS (In-Plane Switching) or MVA (Multi-domain Vertical Alignment) panel technology;

    (iii)   have a DVI input and a DisplayPort input. A full length (minimum 5') DisplayPort cable must be supplied;

    (iv)   be TCO Display 05 certified. The certification must be between TCO and manufacturer of the monitor. The display must bear the certification labeling;

    (v)   be ISO 9241-307 (Class 1) certified pixel error rate for monitors 24 inches or less and must be ISO 9241-307 (Class 2) certified pixel error rate for monitors 27 inches or greater;

    (vi)   be VESA-DPMS (Display Power Management Signaling) compliant;

    (vii)   be DDC 2b (Display Data Channel) compliant;

    (viii)   be EnergyStar 5.0 compliant;

    (ix)   be EPEAT Gold compliant;

    (x)   have a user detection sensor if the monitor is edge-lit LED. This system switches the monitor into a low power or off state once the user is out of range (e.g. not directly in front);

    (xi)   have a minimum native resolution of 1920x1080 which must be displayed on the entire screen while maintaining a 16:9 wide aspect ratio;

    (xii)   have a 1000:1 contrast ratio (non-dynamic), 250 cd/m2 (candela per square meter) brightness, 8 ms. response time (grey to grey) and 25 ms. response time (total: black to white + white to black), 178 vertical/178 degree horizontal viewing angle (measured at >10:1 contrast ratio);

    (xiii)   come with a pedestal base capable of swivel, pivot and height adjustment (minimum 4.0 inch height adjustment);

    (xiv)   be microprocessor based and come with controls that produce an on-screen menu (in both English and French or in non-language specific symbols) that control brightness, contrast, colour temperature and phase;

    (xv)   automatically correct size, position and phase. This must be achieved automatically without user intervention and must be presented through the use of an auto adjust button mounted on the front bezel or an on-screen menu;

    (xvi)   be a separate entity from the main CPU chassis, connected only by monitor cable. Switched power supply cable is not acceptable;

    (xvii)   be supplied with a Kensington lock cut out or similar theft prevention device;

    (xviii)   be 100 mm VESA mount capable.

(b)   **The 23 inch wide backlit LED based LCD default colour display must:**

    (i)   use a 23 inch wide TFT LCD technology and provide a minimum active display area of 23 inches (measured diagonally);

    (ii)   come with stereo speakers integrated within the monitor casing or a monitor OEM manufactured, detachable sound bar specifically designed for that monitor;

    (iii)   must have an integrated, internal USB hub (minimum one "up", one "down");

(c) **The 27 inch wide backlit LED based LCD optional colour display must:**

    (i)   use a 27 inch wide TFT LCD technology and provide a minimum active display area of 27 inches (measured diagonally).

3.2 KEYBOARD

(a)   The following keyboards must be available for purchase:

    (i)   Bilingual key layout: must conform to the Treasury Board Information Technology Standard TBITS-5 bilingual layout as described in the TBITS-5 Canadian Government keyboard standard for information technology equipment effective April 1st 1993.

    (ii)   English layout

    (iii)   Microsoft Canadian French (CF) 105 key layout with English and French control keys. (e.g. : Début/Home, Fin/End, Suppr./Del, etc).

    (iv)   Wireless variation for just the English layout.

    (v)   ireless variations of all of the above

(b)   All keyboards must meet the following mandatory requirements:

    (i)   The keyboard must be detachable from the main unit.

    (ii)   A numeric keypad is required; it must contain, as a minimum, the numbers 0 through 9 and the + and - functions.

    (iii)   Must have a print screen facility.

    (iv)   Must have an auto repeat on hold down for all character, cursor and numeric keys.

    (v)   Must have a standard QWERTY typewriter based layout

    (vi)   Must have an adjustable keyboard angle.

    (vii)   The width of the keyboard must not exceed 55 cm.

    (viii)   The num lock, scroll lock, and caps lock keys must have lights that indicate their operational conditions. This requirement does not apply to wireless variations.

    (ix)   Keyboards must use a USB or PS/2 type connector. This requirement does not apply to wireless variations.

3.3 MOUSE

(a)   All mice must be manufactured by Microsoft or Logitech or must be an Original Equipment Manufacturer (O.E.M.) approved model and must have the O.E.M. brand permanently etched on the device.

(b)   All mice must be optical.

4.0 TECHNICAL DOCUMENTATION

4.1 USER MANUAL

Each system must include an operator/user manual(s). These manuals must be comprehensive guides that include the user instructions for setting up, installing and configuring all components of the default system. These manual(s) must consists of at least the following:

(a)   **Bilingual:** The manual(s) for each system must be available in both official languages.

(b)   **User manual:** The user manual for each system must include an accurate description of all hardware components and all their respective features. This must include descriptions of, and installation and configuration instructions for, all components.

(c)   **Diagrams:** For the purposes of orientation, and as a complement to the setup and configuration instructions, the manual must offer internal and external diagrams of the system. These diagrams

must accurately illustrate external chassis (front and rear), rear chassis port configuration, hard drive cage assembly (for the purposes of hard disk configuration), cover removal, motherboard, jumper locations, CPU slot or socket and RAM module slots.

(d) The manual(s) must include documentation for power, power management, environmental or site preparation requirements.

(e) The manual(s) must include diagnostics/troubleshooting section referencing errors generated through power-on self-test (POST), system BIOS and any other hardware errors. This section must also include appropriate explanations and troubleshooting advice for each error described.

(f) The features in articles (a) through (e) must be included in the same document, in the same format and their respective chapters must be referenced properly in a table of contents and an index.

(g) A separate monitor manual is acceptable to fulfil the user documentation requirement. This monitor manual must include descriptions of and diagrams for installation and configuration for connection to video ports, settings for resolutions and refresh rates, power management features and site and environmental requirements.

(h) Should the system undergo a major configuration change (changes in motherboard, BIOS make, setup/configuration routines, external cabinet and chassis) during the life of the Standing Offer, the manuals must reflect that change in the form of a manual reissue or an addendum shipped with the original manual. The addendum must be the same quality, typeface and page size as the original manual.

(i) The manuals must not describe components that are obsolete and are not included in the system.

(j) The manuals described in this Annex must be available electronically (contained on an accompanying CD-ROM or available on the manufacturer's web site specified in this Annex). The reader must offer a table of contents, index, hypertext links and word search capabilities. Read me files to be viewed by a text editor are unacceptable. The on-line versions must offer the mandatory illustrations with the same level of detail as a paper equivalent. If a CD-ROM is used it must be a pressed production CD and must be written by the original equipment manufacturer with a suitable label that identifies it as such, including the manufacturer's name and applicable model(s) and the revision number.

(k) If requested by a user in a Call-up, the contractor must deliver the reduced number of manuals requested.

5.0 CERTIFICATION AND APPROVAL

5.1 Hardware Certifications and Approvals

(a) All high-voltage electrical equipment must be certified or approved for use in accordance with the Canadian Electrical Code, Part 1, prior to delivery, by an agency accredited by the Standards Council of Canada. All systems must bear the certification logo that is applicable to the accredited agency. Current accredited agencies include, but are not exclusively comprised of:

(i) Canadian Standards Association (CSA).

(ii) Underwriters' Laboratory Inc. (cUL) (cULus).

(iii) Underwriters' Laboratories of Canada (ULC).

(iv) Entela Canada (cEntela).

(v) Intertek Testing Services (cETL).

(vi) Met Laboratories (cMET).

(vii) OMNI Environmental Services Inc (cOTL).

(viii) TUV Rhineland of North America (cTUV).

(b)   All systems and monitors must comply with the emission limits and labelling requirements set out in the Interference Causing Standard ICES-003, "Digital Apparatus", published by Industry Canada.

(c)   Devices that have obtained Industry Canada ICES-003 approval that have been assembled from tested components and have not undergone entire system testing will be considered non-compliant. All devices tested must bear the appropriate labels indicating trade name, model number, and the words indicating Industry Canada ICES-003 compliance.

(d)   All systems must be certified for Microsoft's Windows Logo Program for Windows 7 Professional. The certification must be between Microsoft and the OEM / system manufacturer.

(e)   **Acoustics:**

  (i)   All systems must have the declared A-weighted sound power level, LWAd, bels (decibels) must not exceed 5.0 at idle (equivalent to 50 decibels) and 5.3 at operating (hard drive) (equivalent to 53 decibels).

  Note: LWAd values are determined according to ISO 9296 based on measurements according to ISO 7779. Idle mode is defined in ISO 7779 and includes fan noise and may include a hard disk drive that is spinning but not accessing. Operating mode is defined in ISO 7779 and applies to accessing of the hard disk drive, not an optical disk drive, and includes fan noise.

(f)   In order to assure compliance to the minimum monitor specifications, monitors must meet VESA-FPDM defined performance measurements. All monitor specifications - specifically brightness, contrast ratio, vertical and horizontal viewing angles and response times (black to black) - must be vetted using the VESA-FPDM vers. 2.0 standardised test suite.

5.2   Environmental Stewardship

(a)   In support of the Canadian Federal Government's Sustainable Development Strategy, which includes policies on Green Procurement, the system and monitor manufacturers must commit to a comprehensive, nationally recognised environmental standard for:

  (i)   The reduction or elimination of environmentally hazardous materials

  (ii)   Design for reuse and recycle

  (iii)   Energy efficiency

  (iv)   End of Life Management for reuse and recycle

  (v)   Environmental stewardship in the manufacturing process

  (vi)   Packaging

(b)   All systems and all monitors must be certified through the Electronic Product Environmental Assessment Tool (EPEAT Gold level).

(c)   In addition to the mandatory EPEAT certification, the system must meet and be verified for 4.7.2.2: Third-party certified environmental management system for design and manufacturing organizations.

(d)   Monitors must be TCO Display 05 certified.

(e)   The system manufacturer must include 80Plus Gold certified, high efficiency power supplies in their default offering.

(f)   The system manufacturer must be a member in good standing of a recognized entity specifically established to address end-of-life electronics recycling and reuse in Canada. This entity must demonstrate an investment in environmental stewardship, and must be in compliance with all applicable laws and regulations.

> *Note:* An example of such a collective organization is Electronics Product Stewardship Canada. Should the manufacturer/vendor wish to identify membership in a similar entity or provide evidence of participation in a corporate or collective take-back/stewardship service they must do so during the

> RFSO question and answer period. The contract authority reserves the right to determine the level of acceptability of the proposed alternative.

6.0 VALUE-ADDED VENDOR SUPPORT

6.1 SUPPORT PERSONNEL

(a) The Offeror must have, on-staff or through a maximum of four third-party technical support subcontractor(s), an existing and experienced technical support infrastructure, staffed with personnel trained on the Offeror's products. This technical support infrastructure must consist of one hardware technician with NOS training based in the National Capital Region and a minimum of fifteen technicians across Canada. NOS trained technicians must include a sampling of 2 of the following:

(i) Microsoft Certified Engineers

(ii) VMware Certified Professional

(b) All hardware support staff (either third party contractor or on-staff) must possess knowledge specific to the Offeror's exact configuration as supplied to clients and must demonstrate that training and knowledge.

(c) The Offeror must have an established hardware-training program for on-staff and third party service/support provider system engineers that is specific to the default brand name. The course curriculum must include system hardware (which includes the model or model family being supplied), management software, diagnostics and other service and utilities as offered by the system manufacturer. This course must be available to federal government employees upon request and must be available in French and English.

6.2 TELEPHONE SUPPORT

(a) The Offeror must provide end-user accessible telephone hardware technical support for all supplied systems, involving hardware troubleshooting, configuration support and any systemic software/hardware interoperability issues and/or connectivity issues.

(b) The telephone support staff must support:

(i) All internal hardware components of the system supplied.

(ii) Windows 7 Professional operating system as it relates to the Offeror's system.

(iii) Peripherals such as optical drives, if supplied by the Offeror as it relates to the Offeror's system.

(iv) Connectivity issues relating to all terrestrial and wireless communications devices supplied.

(c) The telephone support line must:

(i) Be a toll free service.

(ii) Employ a minimum staff of five system engineers concurrently 24 hours a day, 7 days a week dedicated to the Offeror's product.

(iii) Offer support service in both official languages (French and English).

(iv) Be accessible from all parts of Canada, United States and from international locations where service is available.

(v) Use a serial number tracking system that identifies all components, respective versions and respective driver versions of the installed system undergoing the troubleshooting.

(vi) Use an electronically shared, nation-wide knowledge database to be used by support staff for all acquired troubleshooting expertise, product idiosyncrasies and configuration parameters and all warranty entitlements for each specific component supplied.

(vii) Include provisions to escalate issues to plant of component manufacture.

(viii) Provide a minimum 90% first call connection rate to a trained and qualified support technician. If a message centre expedites the call, a trained and qualified technician must respond, in the language of the caller's choosing, within one hour. During the call the technician must engage in a problem diagnosis process with the customer prior to a service call being placed.

(ix) Not exceed an on-hold time of more than five minutes on initial call.

(x) Be supplied at no additional cost (i.e. included in the cost of the system)

(xi) Be available for the life of the product.

(d) This telephone support service described in articles (a) through (c) must be operated by the original equipment manufacturer. Third party solutions will be evaluated as non-compliant.

6.3 WEB SITE SUPPORT

The Offeror must provide an Internet site offering:

(a) Pages specific to the NMSO. These pages must contain details on the default system configuration, options, default system illustrations and pricing.

(b) Support file areas offering download/upload access for drivers, setup and configuration files and other pertinent software. These files, drivers and documents must be clearly identified as pertaining to the specific make and model of the system.

(c) Message areas for technical assistance and problem diagnosis with system engineers.

(d) Technical information library for downloading product information files, pertinent white papers, default system user service manuals (French and English).

(e) FAQ (frequently asked questions) areas specific to the systems offered.

(f) Bulletins pertaining to product announcements, product recalls, component recalls bug fixes, etc.

(g) "Plain language" technical support question search engine with immediate approximated response.

(h) Customized e-mail notification subscription services to alert clients of device driver revisions, BIOS/firmware updates that pertain to the exact model family, product recalls, component recalls.

(i) The web site support features must be contained on the default system original equipment manufacturer's web site. Links to other manufacturer's web sites cannot be used to achieve the mandatory requirements stated in this article.

(j) The web site support features must be available in French and English including the final destination page. Exceptions for unilingual content are allowed for technical descriptions, support forums, part number references and technical documentation.

(k) When the Offeror refers specifically to this NMSO on its web site, the information presented must be accurate in that only equipment and related prices listed on the CAG web site may be represented as being available on its NMSO.

6.4 IMAGE INSTALLATION AND MIGRATION

(a) A pre-delivery service must be available to pre-configure and install all peripherals, operating systems, client applications and all pertinent drivers specific to the clients' requirements. This service, if requested, must be performed at the manufacturer's site prior to shipping to the client. This service may be performed following the hardware specific quality assurance burn-in.

(b) The Offeror must, upon written request, archive client images.

(c) An image migration service must be made available by the Offeror to assist the client with migrating PC hard drive images, which include applications, user data, user preferences (which includes, network, bookmarks and operating system settings), from an end-of-life PC to a replacement PC. This migration must be achieved across disparate PC manufacturers, models and operating systems.

The offeror must offer this billable service to clients wishing to migrate a minimum of 100 images at one time.

Offeror: _____   Category: 4.0D   3D Workstation

Item No.	Item Summary (see Annex A1 for full Specs)	Manufacturer and Model	Part #	URL for Specifications
	DEFAULT SYSTEM			
1	System:			
2	Processor			
3	RAM: 16.0 GB 1600 MHz. RAM (4x4.0 GB. DIMMs)			
4	Hard Drive: 240 GB SSD SATA version 3.0			
5	Nvidia GTX 770 SLI GPU or AMD HD 7970 GHz. Edition GPU based video controller			
6	Dual Layer DVD writer supporting the following formats: DVD+/-RW, DVD+/-R, DVD-ROM, CD-RW, CD-R, and CD-ROM			
7	Keyboard: TBITS-5			
8	Mouse: Optical scroll (USB or PS/2)			
9	Operating System: Windows 7 Professional (32 bit)			
10	Warranty: 3 Year On Site			
	SYSTEM UPGRADES			
	WARRANTY:			
11	upgrade to Four year On-Site Warranty			
	Default Hard Disk Drive			
12	Upgrade to 480 GB. SSD SATA version 3.0			
	Additional video controllers			
13	Second SLI or Crossfire video controller indenticle to first			
14	~~Third SLI or Crossfire video controller identical to first~~			
	Optical drive			
15	Blu Ray player			
	Operating System			
16	Windows 7 Professional (64 bit)			
	Value Added Service			
17	System Installation at end user site			
18	Image duplication per PC at factory (minimum 100 per client)			
19	Attach MAC address to system with sticker			
	System Right-Sizing			
20	Reduce to 500 Watt power Supply			
21	Downgrade to nVidia GTX 480 SLI or AMD Radeon 4870 CF			
22	Downgrade to entry-level 2D controller			
23	downgrade to 1 TB. Hard disk (7200 RPM., 16 MB. cache)			
24	downgrade to 500 GB. Hard disk (7200 RPM., 16 MB. cache)			
25	~~Downgrade to 12 GB RAM~~			
26	Downgrade to 8 GB RAM			
27	Downgrade to Intel Core i7 3770 or Intel Xeon E3-1275			
	SYSTEM COMPONENTS			
	Monitor			
28	23 inch Wide Multi-Media Monitor			
29	27 inch Wide Multi-Media monitor			
30	27 inch monitor with the identical specification to annex A with a 2560x1440 resolution			
	RAM			
31	2.0 GB DIMM			

Offeror: _____

Category: **4.0D** **3D Workstation**

Item No.	Item Summary (see Annex A1 for full Specs)	Manufacturer and Model	Part #	URL for Specifications
32	4.0 GB DIMM			
	Hard Disk Drive			
33	500 GB. SATA 3.0 w/16 MB. of cache, 7200 RPM			
34	1.0 TB. SATA 3.0 w/16 MB. of cache, 7200 RPM			
35	120 GB (or greater) SSD			
36	240 GB (or greater) SSD			
	Optical Drive			
37	Internal 12x Blu-Ray writer with software			
38	Dual Layer DVD writer supporting the following formats: DVD+/-RW, DVD+/-R, DVD-ROM, CD-RW, CD-R, and CD-ROM			
	External Hard Drives			
39	2.0 TB. USB connected			
	Display Cable Adapter			
40	DisplayPort or HDMI to DVI cable			
	USB Thumbdrive			
41	8.0 GB USB Key			
42	16 GB USB Key			
43	32 GB USB key			
44	FIPS 140-2 certified 8 GB Capacity (or greater)			
45	FIPS 140-2 certified 16 GB Capacity (or greater)			
46	FIPS 140-2 certified 32 GB Capacity (or greater)			
	Keyboard			
47	TBITS-5			
48	English			
49	Microsoft CF layout with English and French control keys			
50	Wireless TBITS-5			
51	Wireless English			
	Mouse			
52	Optical Scroll Mouse (USB or PS/2)			
53	Microsoft or Logitech mouse w/third thumb button and scroll function			
54	Wireless 4 button optical scroll mouse (USB)			
	Stand			
55	Bracket or Stand **(if required)**			
	Multimedia			
56	External Stereo Speakers (USB or AC powered)			
57	Headphones			
Full product details and PRICING MUST be provided for each line item listed above. Offerors must complete the above table for each system offered.				