

**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**
**Bid Receiving Public Works and Government
Services Canada/Réception des soumissions
Travaux publics et Services gouvernementaux
Canada**
**1713 Bedford Row
Halifax, N.S./Halifax, (N.É.)
B3J 1T3
Bid Fax: (902) 496-5016**

REQUEST FOR PROPOSAL DEMANDE DE PROPOSITION

**Proposal To: Public Works and Government
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Title - Sujet MARITIME ACOUSTIC PROCESSING SYSTEM	
Solicitation No. - N° de l'invitation W7707-135640/A	Date 2012-12-13
Client Reference No. - N° de référence du client W7707-13-5640	
GETS Reference No. - N° de référence de SEAG PW-\$HAL-218-8866	
File No. - N° de dossier HAL-2-69275 (218)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2013-01-10	Time Zone Fuseau horaire Atlantic Standard Time AST
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Figueredo, Laila	Buyer Id - Id de l'acheteur hal218
Telephone No. - N° de téléphone (902) 496-5353 ()	FAX No. - N° de FAX (902) 496-5016
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified Herein Précisé dans les présentes	

Instructions: See Herein

Instructions: Voir aux présentes

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

Issuing Office - Bureau de distribution
Acquisitions
1713 Bedford Row
Halifax, N.S./Halifax, (N.É.)
B3J 3C9

Delivery Required - Livraison exigée SEE HEREIN	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie) Signature Date	

Title: Maritime Acoustic Processing System

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PART 1 - GENERAL INFORMATION

1. Security Requirement

There is no security requirement associated with the requirement.

2. Requirement

The requirement is detailed under Annex A - Requirement.

3. Debriefings

After contract award, bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2012-11-19) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2. Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.

3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than five (5) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the questions or may request that the Bidder do so, so that the proprietary nature of the question is

eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

4. Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Nova Scotia.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid: 2 hard copies
Section II: Financial Bid: 1 hard copy
Section III: Certifications: 1 hard copy

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement

(<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Technical Bid

In their technical bid, bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment, Annex B. The total amount of Goods and Services Tax (GST) or Harmonized Sales Tax (HST) must be shown separately, if applicable.

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**1. Evaluation Procedures**

(a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.

(b) An evaluation team composed of representatives of Canada will evaluate the bids.

1.1 Technical Evaluation**1.1.1 Mandatory Technical Criteria**

1. The Bidder must submit specifications and descriptive literature for the computer and server systems being offered in their proposal. Details stated in your specifications and descriptive literature will be compared and must meet the Mandatory Requirements specified in Annex A, Requirement.

Documentation may consist of a manufactures name, product part number and a catalogue description including any specification information.

It is incumbent upon the Bidder to submit a complete proposal showing that their items will meet or exceed the technical descriptions described in this solicitation. Failure to submit sufficient information to allow for a full evaluation will result in the proposal being declared non-responsive.

2. The Bidder to complete the Cross Reference column in Annex C - Mandatory Evaluation Criteria identifying the page / paragraph in their proposal which demonstrates that they meet each of the specified mandatory criteria.

1.2 Financial Evaluation

SACC Manual Clause A0220T (2007-05-25), Evaluation of Price

2. Basis of Selection**2.1 Basis of Selection - Mandatory Technical Criteria**

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and related documentation to be awarded a contract. Canada will declare a bid non-responsive if the required certifications and related documentation are not completed and submitted as requested.

Compliance with the certifications bidders provide to Canada is subject to verification by Canada during the bid evaluation period (before award of a contract) and after award of a contract. The Contracting Authority will have the right to ask for additional information to verify bidders' compliance with the certifications before award of a contract. The bid will be declared non-responsive if any certification made by the Bidder is untrue, whether made knowingly or unknowingly. Failure to comply with the certifications, to provide the related documentation or to comply with the request of the Contracting Authority for additional information will also render the bid non-responsive.

1. Mandatory Certifications Required Precedent to Contract Award

1.1 Code of Conduct and Certifications - Related documentation

By submitting a bid, the Bidder certifies, for himself and his affiliates, to be in compliance with the Code of Conduct and Certifications clause of the Standard instructions. The related documentation hereinafter mentioned will help Canada in confirming that the certifications are true. By submitting a bid, the Bidder certifies that it is aware, and that its affiliates are aware, that Canada may request additional information, certifications, consent forms and other evidentiary elements proving identity or eligibility. Canada may also verify the information provided by the Bidder, including the information relating to the acts or convictions specified herein, through independent research, use of any government resources or by contacting third parties. Canada will declare non-responsive any bid in respect of which the information requested is missing or inaccurate, or in respect of which the information contained in the certifications is found to be untrue, in any respect, by Canada. The Bidder and any of the Bidder's affiliates, will also be required to remain free and clear of any acts or convictions specified herein during the period of any contract arising from this bid solicitation.

Bidders who are incorporated, including those bidding as a joint venture, must provide with their bid or promptly thereafter a complete list of names of all individuals who are currently directors of the Bidder. Bidders bidding as sole proprietorship, including those bidding as a joint venture, must provide the name of the owner with their bid or promptly thereafter. Bidders bidding as societies, firms, partnerships or associations of persons do not need to provide lists of names. If the required names have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply will render the bid non-responsive. Providing the required names is a mandatory requirement for contract award.

Canada may, at any time, request that a Bidder provide properly completed and Signed Consent Forms (Consent to a Criminal Record Verification form- PWGSC-TPSGC 229) (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>) for any or all individuals aforementioned within the time specified. Failure to provide such Consent Forms within the time period provided will result in the bid being declared non-responsive.

2. Additional Certifications Precedent to Contract Award

The certifications listed below should be completed and submitted with the bid, but may be submitted afterwards. If any of these required certifications is not completed and submitted as requested, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the bid non-responsive.

2.1 Federal Contractors Program - over \$25,000 and below \$200,000 Certification

Suppliers who are subject to the Federal Contractors Program (FCP) and have been declared ineligible contractors by Human Resources and Skills Development Canada (HRSDC) are no longer eligible to receive federal government contracts over the threshold for solicitation of bids as set out in the Government Contracts Regulations. Suppliers may be declared ineligible contractors either as a result of a finding of non-compliance by HRSDC, or following their voluntary withdrawal from the FCP for a reason other than the reduction of their workforce to less than 100 employees. Any bids from ineligible contractors, including a bid from a joint venture that has a member who is an ineligible contractor, will be declared non-responsive.

The Bidder, or, if the Bidder is a joint venture the member of the joint venture, certifies its status with the FCP, as follows:

The Bidder or the member of the joint venture **(Bidder to complete)**

- a. () is not subject to the FCP, having a workforce of less than 100 full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more in Canada;
- b. () is not subject to the FCP, being a regulated employer under the Employment Equity Act, S.C. 1995, c. 44;
- c. () is subject to the requirements of the FCP, having a workforce of 100 or more full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more in Canada, but has not previously obtained a certificate number from HRSDC, having not bid on requirements of \$200,000 or more;
- d. () has not been declared an ineligible contractor by HRSDC, and has a valid certificate number as follows: _____.

Further information on the FCP is available on the HRSDC Web site.

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement

There is no security requirement associated with the requirement.

2. Requirement

The Contractor must provide all the deliverables in accordance with the Requirement at Annex "A" and the Contractor's technical bid entitled _____, dated _____.

3. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual(<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

3.1 General Conditions

2010A (2012-11-19), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

3.2 Supplemental General Conditions

SACC 4001 (2010-08-16) Hardware Purchase, Lease and Maintenance; apply to and form part of the Contract.

4. Term of Contract

4.1 Delivery Date

All the deliverables must be received on or before **28 March 2013**.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Laila Figueredo
Supply Specialist
Public Works and Government Services Canada
Atlantic Region - Acquisitions Branch
1713 Bedford Row
Halifax, Nova Scotia
B3J 3C9

Telephone: 902-496-5353

Facsimile: 902-496-5016

E-mail: laila.figueroa@pwgsc-tpsgc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

5.2 Technical Authority

The Technical Authority for the Contract is: (to be provided upon Contract award)

Name: _____

Title: _____

Organization: _____

Address: _____

Telephone : _____

Facsimile: _____

E-mail address: _____

The Technical Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

5.3 Contractor's Representative (Bidder to complete)

The Contractor's contact for this Contract is:

Name: _____

Title: _____

Organization: _____

Address: _____

Telephone: _____

Facsimile: _____

E-mail address: _____

6. Payment

6.1 Basis of Payment - Firm Price, Firm Unit Price(s) or Firm Lot Price(s)

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices, as specified in Annex B for a cost of \$ _____ (to be provided upon contract award). Customs duties are included, and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

6.2 Limitation of Price

SACC Manual clause C6000C (2011-05-16) Limitation of Price

6.3 Single Payment

SACC Manual clause H1000C (2008-05-12) Single Payment

6.4 SACC Manual Clauses

SACC Manual clause C2000C (2007-11-30) Taxes - Foreign based Contractor (if applicable)

7. Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

2. Invoices must be distributed as follows:

- a. The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.
- b. One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

8. Certifications

8.1 Compliance

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

9. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Nova Scotia.

10. Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the supplemental general conditions 4001 (2010-08-16) Hardware Purchase, Lease and Maintenance;
- (c) the general conditions 2010A (2012-11-19), General Conditions - Goods (Medium Complexity);
- (d) Annex A, Requirement;
- (e) Annex B, Basis of Payment;
- (f) the Contractor's bid dated _____.

11. Defence Contract

SACC Manual clause A9006C (2012-07-16) Defence Contract

12. SACC Manual Clauses

SACC Manual Clause B1501C (2006-06-16) Electrical Equipment

SACC Manual Clause B7500C (2006-06-16) Excess Goods

13. Insurance

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

Solicitation No. - N° de l'invitation

W7707-135640/A

Amd. No. - N° de la modif.

File No. - N° du dossier

HAL-2-69275

Buyer ID - Id de l'acheteur

hal218

CCC No./N° CCC - FMS No/ N° VME

W7707-13-5640

ANNEX A

REQUIREMENT

The Requirement (Annex A) appended to the bid solicitation package is to be inserted at this point and forms part of this document.

ANNEX B**BASIS OF PAYMENT**

Detailed financial bid shall be submitted in the following format: *(Bidder to complete)*

Item	Description	Unit of Measure	Quantity (a)	Unit Price (b)	Extended Price (a x b)
A. CPU Servers					
1	Data Manager Servers	each	7	\$ _____	\$ _____
2	Display Servers	each	6	\$ _____	\$ _____
3	Sensor Interface 1 (SIF1)	each	2	\$ _____	\$ _____
4	Sensor Interface 3 (SIF3)	each	2	\$ _____	\$ _____
5	Spare Servers	each	3	\$ _____	\$ _____
B. Spare Parts					
6	Video Card with 2 DVI outputs connections must be installed. The minimum card acceptable is an Nvidia GTS450 1GB x 2	each	3	\$ _____	\$ _____
7	Power supply must be 100-240VAC, 500W or better	each	3	\$ _____	\$ _____
8	1 General Standards HPDI high speed parallel input card, the card must be General Standards PCI-HPD132A-256k or better	each	2	\$ _____	\$ _____
9	1 NTDS Type E IOcard must be Sabtech Swift PCI Type E 64K/REG NTDS SE-04102-00 or better	each	2	\$ _____	\$ _____
10	2 A/D Cards 8 Channel, 24 bit, General Standards A/D cards PCI-PMC-24DSL12-8-SF-S-PLL or better	each	2	\$ _____	\$ _____
11	1 AIM-USA 1553 single channel card MFGRPN: API1553-1 or better	each	2	\$ _____	\$ _____
	TOTAL (Items 1 to 11)				\$ _____

Total Estimated Cost = \$ _____ excluding taxes

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Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

hal218

Client Ref. No. - N° de réf. du client

W7707-13-5640

File No. - N° du dossier

HAL-2-69275

CCC No./N° CCC - FMS No/ N° VME

ANNEX C

MANDATORY EVALUATION CRITERIA

The Mandatory Evaluation Criteria (Annex C) appended to the bid solicitation package is to be inserted at this point and forms part of this document.

ANNEX A

REQUIREMENT

Maritime Acoustic Processing System – Sea Going Servers

DRDC Atlantic has a requirement for ruggedized computers and servers (CPU's) for sea-going systems for acoustic processing research and display. The CPU's will form a processing and display cluster of computers and must be sized to fit into the expected spaces aboard ship. Although focussed on acoustic processing, it is expected that the CPU's will be based on standard computing components running applications and code in Linux (Ubuntu and Red Hat Enterprise License) and Microsoft Windows environments. The CPUs must meet MIL specs as they are expected to deploy for extended periods from a few weeks to a few months at a time aboard military and research ships.

There are 5 types of CPU's required in each system. The various CPU's are expected to be built up from common components, such as common motherboard, common processor, video cards etc. This will allow for ease of maintenance and the ability to exchange parts between units in the event of failures while the systems are fielded at sea.

The requirements for the CPU's are as described below with quantities to build 2 of our systems plus some sparing.

Delivery Date: On or Before 28 March 2013

Mandatory Requirements

Table 1. Compliance Table (All CPU's):

Each CPU must meet the following Requirements		
1		Mil Specifications
	A	Must provide test results showing systems meet MIL-STD 901D Grade A (shock tolerance)
	B	Must provide test results showing systems meet MIL-STD 167-1/2 (vibration tolerance)
	C	Must provide evidence systems are built to meet MIL-STD 810F M-510.4 (sand and dust)
	D	Must provide evidence systems are built to meet MIL-STD 810F M-509.4 (salt and fog conditions)
	E	Must provide evidence systems are built to meet MIL-STD 810F M-508.5 (inhibit fungus growth)
2		Operating Conditions
	A	CPU's must plug into 120VAC 60Hz power
	B	CPUs must be able to operate in the temperature range 10-35C
	C	CPU's must be able to operate in humidity range RH 10-90% non-condensing
	D	Noise must not exceed 55dB when running at full power
	E	Chassis must fit into four post 19 inch standard racks with a maximum depth of 25 inches
	F	Rails, fittings and/or shelves must be provided for mounting and securing chassis into 4 post 19 inch standard racks.
	G	When mounted in a standard 19 inch rack, the maximum height of each chassis is not to exceed 3U

Each CPU must meet the following Requirements		
3		System Components
	A	Each must be capable of running Ubuntu Linux 10.04x64 and Red Hat Enterprise License (this does not imply dual boot is required – it is expected that the OS may be changed by the user at a future date)
	B	Each is to be delivered with Ubuntu Linux 10.04x64 installed with all needed drivers.
	C	Software drivers for all system components must be available for Ubuntu Linux as well as Red Hat Enterprise License
	D	Motherboard must have a minimum of 2 CPU sockets
	E	Each CPU must have at least 1 spare slot after all add-in cards are installed. This slot must be capable of accepting a gigabit fiber optic card. (card need not be supplied)
	F	Motherboards must have four pin fan connectors that allow for fan speed control and the connected fans must be four wire devices as well.
	G	Each must contain multicore processors. Minimum acceptable are Intel Xeon Sandy Bridge (or equivalent) 64bit, 6 core, 2GHz
	H	Each must come with 64GB RAM installed
	I	Power supply must be 100-240VAC, 500W or better
	J	A DVD RW Optical Drive must be provided in each
	K	There must be a primary OS hard drive 2.5 inch SATA and at least 500 GB 7200RPM
	L	All disk drives must be easily removable from the front of the chassis
	M	Disk drive bays must have a lockable door (key-type)
	N	There must be either a VGA and/or a DVI video output
	O	Each must have a dual gigabit copper Ethernet port installed
	P	Each must have at least one serial port (RS232)
	Q	Each must have at least 2 USB 2.0 ports
4		The following components must be the same size, make and model across all CPU's
	A	Motherboards
	B	Computer Memory (RAM)
	C	Processors
	D	Add-on video cards
	E	Optical drives
	F	Ethernet Cards
	G	Power Supply

Item 1. Compliance Table (Data Manager CPU):

The Data Manager CPU acts as a data manager, storing data that is received from a variety of interfaces. In addition to the requirements set out in Table 1 the following requirements must be met:

Each Data Manager CPU must meet the following Requirements		
		Must meet all requirements in Table 1
	A	At least 1 additional 3.5" disk bay must be installed. The disk must be hot swappable and the bay must be accessible from the front of the chassis and lockable with a key
	B	A (minimum) 2TB 7200RPM SATA hard drive must be provided and loaded in the bay

Item 2. Compliance Table (Display Server CPU):

The Display Server CPU processes information and drives operator displays. The Display CPU is connected to 2 thirty inch LCD screens each with a resolution of 2560x1600 pixels. In addition to the requirements set out in Table 1 the following requirements must be met:

Each Display Server CPU must meet the following Requirements		
		Must meet all requirements in Table 1
	A	A Video Card with 2 DVI outputs connections must be installed. The minimum card acceptable is an Nvidia GTS450 1GB x 2
	B	The video card must support 2 screens simultaneously at 2560x1600 pixels and must be supported by Ubuntu and Red Hat Linux drivers.

Item 3. Compliance Table (Sensor Interface Server CPU (SIF1)):

The Sensor Interface Server 1 (SIF1) CPU gathers data from ship sensors using a specialized interface card. In addition to the requirements set out in Table 1 the following requirements must be met:

Each SIF1 CPU must meet the following Requirements		
		Must meet all requirements in Table 1
	A	1 NTDS Type E IOcard must be installed and must be Sabtech Swift PCI Type E 64K/REG NTDS SE-04102-00 or better
	B	1 General Standards HPDI high speed parallel input card must be installed. The card must be General Standards PCI-HPD132A-256k or better
	C	There must be at least 2 serial ports

Item 4. Compliance Table (Sensor Interface Server CPU (SIF3)):

The Sensor Interface Server 3 (SIF3) CPU gathers data from ship sensors using a specialized interface card. In addition to the requirements set out in Table 1 the following requirements must be met:

Each SIF3 CPU must meet the following Requirements		
		Must meet all requirements in Table 1
	A	2 A/D Cards 8 Channel, 24 bit, General Standards A/D cards PCI-PMC-24DSL12-8-SF-S-PLL or better must be installed
	B	1 AIM-USA 1553 single channel card MFGPRN: API1553-1 or better must be installed.

Item 5. Compliance Table (Spare Server CPU):

The Spare server is chosen to allow quick sparing at sea if a CPU goes down. It can accommodate any of the cards or functions as the other systems by replacing cards in it. Thus it must meet all requirements set forth in table 1 as well as the following:

Each Spare Server CPU must meet the following Requirements		
		Must meet all requirements in Table 1
	A	It must have 2 serial ports mounted on the same side of the chassis as for SIF1 (Item 3-C)
	B	At least 1 additional 3.5" disk bay must be installed as in the Data Manager (Item 1-A). The disk must be hot swappable and the bay must be accessible from the front of the chassis and be lockable with a key
	C	The unit must be able to accommodate the same video card as used in the Display Server (Item 2-A) with 2 DVI output connections available.
	D	The unit must be able to accommodate the NTDS IO card used in SIF1 (Item 3-A)
	E	The unit must be able to accommodate the General Standards HPDI high speed parallel input card used in SIF1 (Item 3-B)
	F	The unit must be able to accommodate the 2 A/D Cards in SIF3 (Item 4-A)
	G	The unit must be able to accommodate the AIM-USA 1553 single channel card in SIF3 (Item 4-B)
	H	Items D and E must be able to fit into the unit at the same time
		Items F and G must be able to fit into the unit at the same time

Quantities Required:

The following servers and spares are to be delivered:

CPU Servers required:

Quantity	Item
7	Data Manager Servers (Item 1)
6	Display Servers (Item 2)
2	Sensor Interface 1 (SIF1) (Item 3)
2	Sensor Interface 3 (SIF3) (Item 4)
3	Spare Servers (Item 5)

Spare Parts required as spares while systems are deployed at sea:

Quantity	Item
3	Video Card with 2 DVI outputs connections must be installed. The minimum card acceptable is an Nvidia GTS450 1GB x 2 (Item 2-A)
3	Power supply must be 100-240VAC, 500W or better (Table 1 item 3-I)
2	1 General Standards HPDI high speed parallel input card, the card must be General Standards PCI-HPD132A-256k or better (Item 3-B)
2	1 NTDS Type E IOcard must be Sabtech Swift PCI Type E 64K/REG NTDS SE-04102-00 or better (Item 3-A)
2	2 A/D Cards 8 Channel, 24 bit, General Standards A/D cards PCI-PMC-24DSL12-8-SF-S-PLL or better (Item 4-A)
2	1 AIM-USA 1553 single channel card MFGRPN: API1553-1 or better (Item 4-B)

ANNEX C

MANDATORY EVALUATION CRITERIA

The Bidder to complete the “Cross Reference” column identifying the page / paragraph in their proposal which demonstrates that they meet each of the specified mandatory criteria.

Table 1. Compliance Table (All CPU's):

Each CPU must meet the following Requirements			Compliant		Cross Reference
			Yes	No	
1		Mil Specifications			
	A	Must provide test results showing systems meet MIL-STD 901D Grade A (shock tolerance)			
	B	Must provide test results showing systems meet MIL-STD 167-1/2 (vibration tolerance)			
	C	Must provide evidence systems are built to meet MIL-STD 810F M-510.4 (sand and dust)			
	D	Must provide evidence systems are built to meet MIL-STD 810F M-509.4 (salt and fog conditions)			
	E	Must provide evidence systems are built to meet MIL-STD 810F M-508.5 (inhibit fungus growth)			
2		Operating Conditions			
	A	CPU's must plug into 120VAC 60Hz power			
	B	CPUs must be able to operate in the temperature range 10-35C			
	C	CPU's must be able to operate in humidity range RH 10-90% non-condensing			
	D	Noise must not exceed 55dB when running at full power			
	E	Chassis must fit into four post 19 inch standard racks with a maximum depth of 25 inches			
	F	Rails, fittings and/or shelves must be provided for mounting and securing chassis into 4 post 19 inch standard racks.			
	G	When mounted in a standard 19 inch rack, the maximum height of each chassis is not to exceed 3U			
3		System Components			
	A	Each must be capable of running Ubuntu Linux 10.04x64 and Red Hat Enterprise License (this does not imply dual boot is required – it is expected that the OS may be changed by the user at a future date)			
	B	Each is to be delivered with Ubuntu Linux 10.04x64 installed with all needed drivers.			
	C	Software drivers for all system components must be available for Ubuntu Linux as well as Red Hat Enterprise License			
	D	Motherboard must have a minimum of 2 CPU sockets			

Each CPU must meet the following Requirements			Compliant Yes No		Cross Reference
	E	Each CPU must have at least 1 spare slot after all add-in cards are installed. This slot must be capable of accepting a gigabit fiber optic card. (card need not be supplied)			
	F	Motherboards must have four pin fan connectors that allow for fan speed control and the connected fans must be four wire devices as well.			
	G	Each must contain multicore processors. Minimum acceptable are Intel Xeon Sandy Bridge (or equivalent) 64bit, 6 core, 2GHz			
	H	Each must come with 64GB RAM installed			
	I	Power supply must be 100-240VAC, 500W or better			
	J	A DVD RW Optical Drive must be provided in each			
	K	There must be a primary OS hard drive 2.5 inch SATA and at least 500 GB 7200RPM			
	L	All disk drives must be easily removable from the front of the chassis			
	M	Disk drive bays must have a lockable door (key-type)			
	N	There must be either a VGA and/or a DVI video output			
	O	Each must have a dual gigabit copper Ethernet port installed			
	P	Each must have at least one serial port (RS232)			
	Q	Each must have at least 2 USB 2.0 ports			
4		The following components must be the same size, make and model across all CPU's			
	A	Motherboards			
	B	Computer Memory (RAM)			
	C	Processors			
	D	Add-on video cards			
	E	Optical drives			
	F	Ethernet Cards			
	G	Power Supply			

Item 1. Compliance Table (Data Manager CPU):

The Data Manager CPU acts as a data manager, storing data that is received from a variety of interfaces. In addition to the requirements set out in Table 1 the following requirements must be met:

Each Data Manager CPU must meet the following Requirements			Compliant Yes No		Cross Reference
		Must meet all requirements in Table 1			
	A	At least 1 additional 3.5" disk bay must be installed. The disk must be hot swappable and the bay must be accessible from the front of the chassis and lockable with a key			

Each Data Manager CPU must meet the following Requirements			Compliant Yes No		Cross Reference
	B	A (minimum) 2TB 7200RPM SATA hard drive must be provided and loaded in the bay			

Item 2. Compliance Table (Display Server CPU):

The Display Server CPU processes information and drives operator displays. The Display CPU is connected to 2 thirty inch LCD screens each with a resolution of 2560x1600 pixels. In addition to the requirements set out in Table 1 the following requirements must be met:

Each Display Server CPU must meet the following Requirements			Compliant Yes No		Cross Reference
		Must meet all requirements in Table 1			
	A	A Video Card with 2 DVI outputs connections must be installed. The minimum card acceptable is an Nvidia GTS450 1GB x 2			
	B	The video card must support 2 screens simultaneously at 2560x1600 pixels and must be supported by Ubuntu and Red Hat Linux drivers.			

Item 3. Compliance Table (Sensor Interface Server CPU (SIF1)):

The Sensor Interface Server 1 (SIF1) CPU gathers data from ship sensors using a specialized interface card. In addition to the requirements set out in Table 1 the following requirements must be met:

Each SIF1 CPU must meet the following Requirements			Compliant Yes No		Cross Reference
		Must meet all requirements in Table 1			
	A	1 NTDS Type E IOcard must be installed and must be Sabtech Swift PCI Type E 64K/REG NTDS SE-04102-00 or better			
	B	1 General Standards HPDI high speed parallel input card must be installed. The card must be General Standards PCI-HPD132A-256k or better			
	C	There must be at least 2 serial ports			

Item 4. Compliance Table (Sensor Interface Server CPU (SIF3)):

The Sensor Interface Server 3 (SIF3) CPU gathers data from ship sensors using a specialized interface card. In addition to the requirements set out in Table 1 the following requirements must be met:

Each SIF3 CPU must meet the following Requirements			Compliant		Cross Reference
			Yes	No	
		Must meet all requirements in Table 1			
	A	2 A/D Cards 8 Channel, 24 bit, General Standards A/D cards PCI-PMC-24DSL12-8-SF-S-PLL or better must be installed			
	B	1 AIM-USA 1553 single channel card MFGRPN: API1553-1 or better must be installed.			

Item 5. Compliance Table (Spare Server CPU):

The Spare server is chosen to allow quick sparing at sea if a CPU goes down. It can accommodate any of the cards or functions as the other systems by replacing cards in it. Thus it must meet all requirements set forth in table 1 as well as the following:

Each Spare Server CPU must meet the following Requirements			Compliant		Cross Reference
			Yes	No	
		Must meet all requirements in Table 1			
	A	It must have 2 serial ports mounted on the same side of the chassis as for SIF1 (Item 3-C)			
	B	At least 1 additional 3.5" disk bay must be installed as in the Data Manager (Item 1-A). The disk must be hot swappable and the bay must be accessible from the front of the chassis and be lockable with a key			
	C	The unit must be able to accommodate the same video card as used in the Display Server (Item 2-A) with 2 DVI output connections available.			
	D	The unit must be able to accommodate the NTDS IO card used in SIF1 (Item 3-A)			
	E	The unit must be able to accommodate the General Standards HPDI high speed parallel input card used in SIF1 (Item 3-B)			
	F	The unit must be able to accommodate the 2 A/D Cards in SIF3 (Item 4-A)			
	G	The unit must be able to accommodate the AIM-USA 1553 single channel card in SIF3 (Item 4-B)			
	H	Items D and E must be able to fit into the unit at the same time			
		Items F and G must be able to fit into the unit at the same time			