भारतीय उष्णदेशीय मौसम विज्ञान संस्थान INDIAN INSTITUTE OF TROPICAL METEOROLOGY

(पृथ्वी विज्ञान मंत्रालय, भारत सरकार का एक स्वायत्त संस्थान)

(An autonomous Institute under the Ministry of Earth Sciences, Govt. of India) पाषाण, पुणे - 411 008 PASHAN, PUNE - 411008

ग्लोबल अभिव्यक्ति स्चना / GLOBAL EXPRESSION OF INTEREST NOTICE

निदेशक, भारतीय उष्णदेशीय मौसम विज्ञान संस्थान, डॉ. होमी भाभा मार्ग, पाषाण, पुणे - 411 008 (भारत) निम्नलिखित की आपूर्ति, प्रवर्तन, संस्थापन एवं संतोषप्रद निरूपण हेतु निर्माताओं/आपूर्तिकारों एवं उनके प्रत्यायित विक्रय एजेंटों से अभिव्यक्ति की रूचि (भाग-। तकनीकी बोली केवल) आमंत्रित करते हैं :

Director, Indian Institute of Tropical Meteorology, Dr. Homi Bhabha Road, Pashan, Pune - 411008 (India) invites Expression of Interest (EOI) (Part-I – Technical Bid only) from Manufacturers / Suppliers and their accredited selling agents for the supply, installation, commissioning, integration and satisfactory demonstration of the following.

क्रम सं.	अ. रू. सूचना सं.	विवरण / Description
Sr. No.	EOI Notice No.	
01.	पीएस/125/10/2018	पृथ्वी विज्ञान मंत्रालय, भारत सरकार के तहत संस्थान में स्थापित एचपीसी स्विधाओं के
	PS/125/10/2018	लिए डिस्क आर्किवल स्टोरेज सॉल्यूशंस।
		DISK ARCHIVAL STORAGE SOLUTIONS FOR HPC FACILITIES INSTALLED
		AT INSTITUTE'S UNDER MINISTRY OF EARTH SCIENCES GOVT. OF INDIA

अभिव्यक्ति की रूचि से पूर्व बैठक (ऑफलाइन) : 5 अक्टूबर 2018 को 1100 बजे Pre-EOI Discussion Meeting (Offline) : 5th October 2018 at 1100 hrs. ऑनलाइन मोड पर निविदा प्रस्तुत करने की अंतिम तिथि : 24 अक्टूबर 2018 को 1500 बजे Last date of submission of EOI on online mode : 24th October 2018 at 1500 hrs. ऑनलाइन निविदा खोलने की तिथि : 24 अक्टूबर 2018 को 1530 बजे Opening of EOI online : 24th October 2018 at 1530 hrs.

संस्थान को किसी निविदा या सभी पसंद की अभिव्यक्ति को बिना कारण बताए निरस्त करने का अधिकार है। विस्तृत विवरण एवं बोलियों के प्रस्तुतीकरण हेतु कृपया वेबसाइट http://www.mstcecommerce.com/eprochome/iitm देखें। संभावित बोलीदाताओं की जानकारी के लिए, निविदा विवरण भी इस संस्थान की वेबसाइट http://www.tropmet.res.in एवं सरकार का सेंट्रल प्रोक्यूरमेंट पोर्टल (सीपीपी) http://www.eprocure.gov.in. पर भी उपलब्ध है।

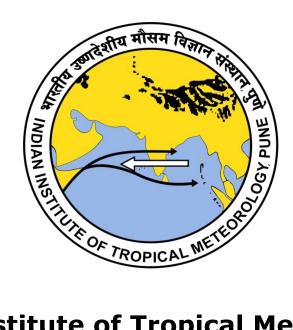
The Institute reserves the right to reject any or all EOI without assigning any reason thereof. For details and submission of bids please visit website http://www.mstcecommerce.com/eprochome/iitm.For the information of the prospective bidders, the EOI details are also available on this Institute's Website: http://www.tropmet.res.in and Government's Central Procurement Portal (CPP) http://www.eprocure.gov.in.

Sd-प्रशासनिक अधिकारी, कृते निदेशक Administrative Officer, for Director ईमेल/Email :psu.iitm@tropmet.res.in

INVITATION OF EXPRESSION OF INTEREST FOR

SUPPLY, INSTALLATION, COMMISSIONING, INTEGRATION AND SATISFACTORY DEMONSTRATION OF DISK ARCHIVAL STORAGE SOLUTIONS FOR HPC FACILITIES INSTALLED AT INSTITUTES' UNDER MINISTRY OF EARTH SCIENCES GOVT. OF INDIA

No:PS/125/10/2018/EOI



Indian Institute of Tropical Meteorology Dr. Homi Bhabha Road, Pashan, Pune 411 008

September 2018

1. ABOUT MINISTRY OF EARTH SCIENCES (MoES) & ITS UNITS

The **Ministry of Earth Sciences** (MoES) Govt. of India is mandated to provide the nation with best possible services in forecasting the monsoons and other weather/climate parameters, ocean state, earthquakes, tsunamis and other phenomena related to earth systems through well integrated programmes. The Ministry also deals with science and technology for exploration and exploitation of ocean resources (living and non-living), and plays nodal role for Antarctic/Arctic and Southern Ocean research.

The various Units under the Ministry of Earth Sciences are: India Meteorological Department (IMD), National Centre for Medium Range Weather Forecasting (NCMRWF), Indian Institute of Tropical Meteorology (IITM) Pune under the Atmospheric Sciences, Geosciences and Seismology sector; National Institute of Ocean Technology (NIOT) Chennai, National Centre for Antarctic & Ocean Research (NCAOR) Goa, Indian National Centre for Ocean Information Services (INCOIS) Hyderabad, Integrated Coastal and Marine Area Management (ICMAM) Chennai, and Centre for Marine Living Resources & Ecology (CMLRE) Kochi under the Ocean Science & Technology sector. MoES aims to create a framework for understanding the complex interactions among key elements of the Earth System, namely ocean, atmosphere and solid earth, by encompassing national programmes in Ocean science, weather, climate, environment and seismology. Improved and reliable forecast of weather and climate requires routine operations as well as research & development using very high resolution dynamical models with high complexity (e.g. coupled ocean-atmosphere-biosphere-cryosphere models). Operations of these models and the necessary R & D to improve them will be possible only if Petabyte of storage acquired for HPC facilities available in the various Institutes of MoES

The following compute intensive major programmes are being undertaken at various MoES organizations.

- Atmosphere and Climate Research Modeling, Observing Systems & Services
- Ocean Services, Technology, Observations, Resources, Modeling and Science
- > Polar and Cryosphere Research
- Seismology and Geoscience
- Research, Education, Outreach and Training

The practical impact of weather, climate and ocean prediction on the world's population and economy drives this community's usage of high performance computing (HPC).

HPC Storage requirement at MoES organizations shall increase from year to year as new programmes are initiated and existing programs are updated.

Understanding the Earth's climate and its variability has been a challenge for several centuries. Several complex processes take place in Earth's climate system.

To understand the climate variability, prediction and its changes is one of the major goals of MoES.

In order to model the climate system, scientists world wide use dynamical models for solving physical/chemical/biological equations. To simulate one day weather, the scientists integrate/solve model equations which run into the order of (depending on model) 5-10 Teraflop with a resolution of 110x110 km. Simulations and prediction are expected to be more accurate if one uses high resolution models. Scientists at MoES use very high resolution (25 km) models to simulate and predict ocean, atmospheric systems individually as well as a coupled systems. Hence, considering the need, MoES has proposed to augment the high performance Storage for HPC Installed at IITM, Pune and NCMRWF Noida.

1.1 ABOUT IITM PUNE AND HPC SYSTEMS AVAILABLE:

The Indian Institute of Tropical Meteorology (IITM), Pune an autonomous body under Ministry of Earth Sciences (MoES), Govt. of India. IITM is country's premiere research Institute to generate scientific knowledge in the field of meteorology and atmospheric sciences that has potential application in various fields such as agriculture, economics, health, water resources, transportation, communications, etc. It functions as a national centre for basic and applied research in monsoon meteorology. For more details please visit http://www.tropmet.res.in.

IITM is presently having two high performance computing systems namely Aaditya and Pratyush

1. Aaditya: The Aaditya HPC is Highly Parallel Supercomputing System built on IBM System X technology. The compute performance is more than 790Tera Flops with Intel Sandy bridge Processors. There are 2384 compute Nodes with each node have 2 number of 8 core Processors (Intel Xeon E5-2670 2.6GHz cache 20MB) and the Memory is 4 GB DDR3 per core and 64 GB per node. The total RAM/Memory of the cluster is more than 150 Tera bytes.

The System is having a 6 Peta bytes disk based storage solution built on IBM GSS technology with read and write performance of about 100 Gigabytes per second and the Tape Storage solution is based on Tivoli Storage 3500 tape library (Two Libraries) with Tivoli Storage Manager for automatic backup and restore and HSM functionalities. The Tape Library is scalable up to 100 Petabytes just by adding LT06 Tape cartridges.

The Operating environment is with Red Hat Enterprise Linux as Operating System, GPFS as the cluster Parallel file system, IBM XCAT as cluster administration and Management tool, UFM (Mellanox Unified Fabric Manager) for Fabric Management, Platform Load sharing facility (LSF) as the job scheduler and all other software, such as compilers, debuggers, profilers, MPI libraries, development environment are based on Intel Cluster Studio and IBM Parallel and Scientific Computation Environment.

2. Pratyush: The latest supercomputer at IITM,Pune "Pratyush" is a Cray-XC40 LC [Liquid Cooled] System with 3315 nodes running Intel Xeon Broadwell E5-2695 processors with a peak performance of 4,006 TFLOPS and a total system memory of 414TB. The system is composed of 18 Compute cabinets and uses Cray's Aries NOC with Dragonfly Interconnect network topology. In addition, the system consists of 16 Intel KNL 7210 accelerator nodes with a peak performance of 42.56TFLOPS and a total memory of 1.5TB.

The System is having a 8 Peta bytes disk based storage solution. The system has Spectra Logic TFinity tape library with 48 LTO-7 Drive for data backup of 24 PiB

The entire system operates on Cray's customized Linux OS, called Cray Linux Environment. The cluster supports architecture specific compilers from Cray as well as Intel and open-source GNU compilers. System also hosts architecture specific parallel libraries like OPENMP, MPI, libsci, Intel Cluster software etc. Applications like GFS, WRF,ROMS,CFS are available on the system for weather forecasting. To facilitate users with parallel program development, DDT parallel debugger and profiler is enabled on the system. The system uses PBS Pro as Workload Manager.

Both Aaditya and Prthvi are installed in two separate Data centres (henceforth DC1 and DC2) respectively in two adjacent building located in the same campus.

MoES is planning to install Disk Archival HPC storage solution in the order of 17 Peta bytes to be installed at its DC2 (Pratyush Data Center) and to be integrated and made available as local HPC Disk Archival Storage for Pratyush.

Note: Vendors can inspect the Site during any working day in working hours with prior Intimation before responding to this EOI.

1.2 ABOUT NCMRWF NOIDA AND HPC SYSTEMS AVAILABLE:

BHASKARA: The Aaditya HPC is Highly Parallel Supercomputing System built on IBM System X technology. The compute performance is more than 350 Tera Flops with Intel Sandy bridge Processors. There are 1052 compute Nodes with each node have 2 number of 8 core Processors (Intel Xeon E5-2670 2.6GHz cache 20MB) and the Memory is 4 GB DDR3 per core and 64 GB per node. The total RAM/Memory of the cluster is more than 67 Tera bytes.

The System is having a 3 Peta Bytes disk based storage solution built on IBM GSS technology with read and write performance of about 100 GigaBytes per second and the Tape Storage solution is based on Tivoli Storage 3500 tape library with Tivoli Storage Manager for automatic backup and restore and HSM functionalities.

The Operating environment is with Red Hat Enterprise Linux as Operating System, GPFS as the cluster Parallel file system, IBM XCAT as cluster administration and Management tool, UFM (Mellanox Unified Fabric Manager) for Fabric Management, Platform Load sharing facility (LSF) as the job scheduler and all other software, such as compilers, debuggers, profilers, MPI libraries, development environment are based on Intel Cluster Studio and IBM Parallel and Scientific Computation Environment.

2. <u>MIHIR:</u> The latest supercomputer at NCMRWF Noida "MIHIR" is a Cray-XC40 LC [Liquid Cooled] System with 2320 nodes running Intel Xeon Broadwell E5-2695 processors with a peak performance of 2.8 Peta FLOPS and a total system memory of 290TiB. The system is composed of 13 Compute cabinets and uses Cray's Aries NOC with Dragonfly Interconnect network topology. In addition, the system consists of 12 Intel KNL 7210 accelerator nodes with a peak performance of 31.92TFLOPS and a total memory of 1.1TB.

The System is having a 5.6 Peta bytes disk based storage solution. The system has Spectra Logic TFinity tape library with 48 LTO-7 Drive for data backup of 16 PiB

The entire system operates on Cray's customized Linux OS, called Cray Linux Environment. The cluster supports architecture specific compilers from Cray as well as Intel and open-source GNU compilers. System also hosts architecture specific parallel libraries like OPENMP, MPI, libsci, Intel Cluster software etc. Applications like GFS, WRF,ROMS,CFS are available on the system for weather forecasting. To facilitate users with parallel program development, DDT parallel debugger and profiler is enabled on the system. The system uses PBS Pro as Workload Manager.

Both Bhaskara and Mihir are installed in Data centres at NCMRWF Noida Campus.

MoES is planning to install Disk Archival HPC storage solution in the order of 10 Peta bytes to be installed, integrated and made available as HPC Disk Archival Storage for Mihir.

Note: Vendors can inspect the Site during any working day in working hours with prior Intimation before responding to this EOI.

2. SCOPE OF WORK:

The scope of this procurement of **Disk Based Archival HPC Storage** Solution is the following:

- a. Supply and installation of two Disk Based Archival HPC Storage solution of minimum usable capacity of 17 Peta Byte and 10 Peta Byte which is to be installed at IITM, Pune (Pratyush datacentre) & NCMRWF Noida (Mihir Data Center) respectively. The Storage Solution should be of latest and best technologies used in building of Top Super Computers across the globe particularly for disk based archival of data both modelling and observations related to weather and climate applications.
- b. Integrating of the **Disk Based Archival HPC Storage Solution** with the existing HPC System & high performance storage available at IITM, Pune & NCMRWF Noida.
- Onsite Support and Services as required for the proposed Disk Based Archival HPC Storage Solution.
- d. Warranty and Support for the proposed **Disk Based Archival HPC Storage Solution** for a period of 3 years.
- e. Comprehensive Annual Maintenance Support of the proposed **Disk Based Archival HPC Storage Solution** for period of 2 years beyond the warranty period.

3. <u>Pre-Qualification for Participation (31/03/2018 will be treated as base date for various pre-qualification as prescribed below):</u>

- a. The bidder should be a registered in India under Indian companies act.
- b. The bidder must have executed supply/system integration of minimum 10PB Disk Based Archival HPC Storage Solution in the past 3 years. Duly certified documents authenticating this aspect should be enclosed in the bid document such as acceptance certificate etc without which the proposals shall not be considered.
- c. The bidder should have been in existence for at least five years and should have well established service/support centre in India with trained manpower in maintaining the proposed solution. Bidder should provide details on his technical support infrastructure in the country.
- d. The Bidder should have maintained successfully a similar **Disk Based Archival HPC Storage Solution** for a period of 3 years. User satisfaction certificate along the contact reference to this effect need to enclosed without which proposal will not be considered.
- e. Participation in the EOI is an essential and necessary condition to participate in further tendering process.

4. Basic Performance and other Requirements:

a. The Proposed **Disk Based Archival HPC Storage Solution** should seamlessly integrate (Vendors can conduct a detailed Site survey for this purpose) with our existing Pratyush & Mihir HPC PFS disk storage.

- b. The overall **Disk Based Archival HPC Storage Solution** should be Scalable and should support various protocols and Security features for data availability and Protection.
- c. The proposed **Disk Based Archival HPC Storage Solution** should be highly dense and should fit in the existing Data Center Space without any additional space requirements; Vendors can conduct a detailed Site survey for this purpose.
- d. The proposed **Disk Based Archival HPC Storage Solution** should be on turnkey basis including all the components required for Integration between existing HPC Solutions available at respective sites.
- e. The Solution should be expandable in future just by adding disks, all drives like SATA, SAS, NL SAS, SSD..etc should be supported.
- f. All the prerequisites like Power, cooling etc. should be clearly mentioned along with the proposed Solution.

5. Evaluation Process:

- Step1: Interested bidders may express their willingness in writing by responding to all the points mentioned **above** with documentary evidence before **24**th **October**, **2018 up to 1500 Hrs.** (**online**).
- Step2: IITM shall review the proposal and call the bidders for a presentation or clarification if required.
- Step3: IITM will short list the bidders based on section 3 and 4 above.
- Step4: The short listed bidders **will only** be allowed to participate in the next stage of tendering process.

6. Instructions to bidder:

- a) Director, IITM reserves the right to cancel the EOI/tendering process at any time without assigning any reason thereof. Institute will not be held liable for any loss which may incur to any bidder because of this cancellation.
- b) An undertaking (self certificate) is to be submitted that the Organization has not been blacklisted by any Central/State Government Department/Organization.
- c) Please note that all the pages of the EOI documents should be signed with date and seal of the Organization.
- d) The covering letter and the Proforma given in this document should be submitted on bidder's company Letter Head, along with the technical proposal.
- e) Canvassing in any form would disqualify the bidder from further participation.
- f) All the submitted proposals will be scrutinized on the basis of documents and information furnished by company/ industry along with the prescribed form as per this EOI document.
- g) Institute may obtain clarifications wherever required from the company or from the referred client list in the profile. Based upon the scrutiny, offers of those companies / industries that

- fulfil the pre-qualification criteria presentation / interaction on proposed methodology and other conditions as stated above would be shortlisted.
- h) Tender document for all the above requirements will be issued only to the technically and financially qualified potential bidders as mentioned in the EOI document.
- i) The procurement will be done in accordance with the guidelines of the Public Procurement (Preference to Make in India), order 2017 (PPP-MII Order) laid down by Govt. of India.
- j) The Bidders should fill the Proforma as attached and sign on all pages.
- k) The bidders should sign on each page in their response to this EOI.
- The bidder should submit all the EOI documents through online E-Procurement web portal http://www.mstcecommerce.com/eprochome/iitm and its hard copy to be submitted in the duly sealed envelope superscribing the EOI/Tender No., failing which EOI Documents will not be considered for further evaluation & process.
- m) The vendor must sign and stamped the duly filled Pre Contract Integrity Pact (Annexure-A) as a part of qualification criteria.
- n) Instructions regarding submission of EOI by bidders through online E-Procurement web portal http://www.mstcecommerce.com/eprochome/iitm is available vide Annexure-B of this document.
- o) The EOI response should be valid for 180 days from the date of opening of the response submitted by the bidder to this EOI.

7. EOI Documents: EOI shall contain the following documents:

- a. Company profiles including organizational structure with details of ownership and evidence of incorporation;
- b. Evidence of technical & financial capability, including annual audited accounts for the past five (05) years ending March 31, 2018. Certificate from Charted Accountant for the Net worth Criteria.
- c. Detailed information on key technical Strengths and deployments of Similar Disk based archival HPC Storage Solutions.
- d. Suggestions and views, if any for this Disk Based Archival HPC Storage Solution requirement.
- e. Submission of EOI: EOI must be submitted through E-Procurement web portal http://www.mstcecommerce.com/eprochome/iitm and its hard copy should be submitted The Director, IITM, Pune in a sealed envelope clearly marked "EOI for Disk Based Archival HPC Storage Solution" within 5 days from the last date of submission of EOI online.
- f. Any other relevant Information on Latest technologies and Solutions for **Disk Based Archival HPC Storage**.
- g. Last date of response to this EOI Invitation (online) is 24th October, 2018 up to 1500 hrs.

8. Independent Monitors

8.1. The BUYER has appointed Independent monitors (hereinafter referred to as Monitors) for this Pact in consultation with the Central Vigilance Commission. The details of Independent External Monitors are as below;

(1) Shri Arun Kumar,

Ex. Secretary, Oil Industry Development Board (OIDB),

B-38, Vrindavan Apartment, Plot No. 1,

Sector 6, Dwarka, New Delhi -110075

Email:-kumararun_53@rediffmail.com

Mob.: 9810621113

(2) Shri. Sushil Gupta,

Ex. Chairman, Central Ground Water Board (CGWB) & Central Ground Water Authority (CGWA).

No. B 702, Aravali Height,

Sector 21 C, Faridabad, Haryana

Pin - 121001

Email: - sushilanitagupta@yahoo.com

Mob.: 09999744061

- 8.2. The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3. The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4. Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of the meetings.
- 8.5. As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.
- 8.6. The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.
- 8.7. The BUYER will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.
- 8.8. The Monitor will submit a written report to the designated Authority of the BUYER/Secretary in the Department/ within 8 to 10 weeks from the date of reference or intimation to him by the BUYER / BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

9. Important dates:

i) Pre- EOI discussion meeting : 5th October, 2018 @ 11:00 hrs at IITM, Pune

ii) Last date of EOI submission : 24th October, 2018 up to 15:00 hrs. iii) Opening of EOI documents : 24th October, 2018 up to 15:30 hrs.

Note: Date of pre-submission discussion meeting is scheduled on 5^{th} October, 2018 @ 11:00 hrs. at IITM, Pune. Queries if any, on this EOI may be submitted in writing (e-mail / fax / by post / by courier etc.) on or before 3^{rd} October, 2018. up to 1700 hrs.

10. Addressed to

The Director,
Indian Institute of Tropical Meteorology
Dr. Homi Bhabha Road, Pashan,
Pune 411 008, Maharashtra, India

Phone: +91-20-2590-4200 Fax : +91-20-2586-5142

Note: For any clarification, the bidders are advised to contact following authorized official: -

Name of Official Contact No.

1) Shri. S.M.D. Jeelani, Sc-E (For technical clarification) 020-25904213 2) Shri. Yogesh Belgude, Asst. Manager (For any other clarification) 020-25904483

(e-mail: psu.iitm@tropmet.res.in)

PROFOMA I INDIAN INSTITUTE OF TROPICAL METEOROLOGY (AUTONOMOUS INSTITUTE, MINISTRY OF EARTH SCIENCES, GOVERNMENT OF INDIA)

1. Part	ticulars of Applica	nt Com	pany										
	of the Company												
Regist	ration No.												
										STD Code Tel. No.1			
									-	Γel. N	0.2		
Addres	3 S								Ī	Fax N	0.		
		City							ı	Pin			
		State					E-ma	ıil *					
Websit	te Address												
Туре о	f company	Gover	nment				ctor Ur	nderta	king			te Limited	
		Partne	•		Publi						_	rietorship	
	il sent on this add								d a se	epara	te she	et, if necess	ary
	ticulars of Managi			Propriet	tor/Ma	anag	ing Pai	rtner					
Name	& Designation	Addr	ress							Code			
									Tel.				
										el. No.2			
		-						Fax No.					
	City								Mob				
		State	Pin Pin				E-mail						
3. Part	ticulars of Contact	Person	ıs		1			·					
S No.	Name & Design	ation	ition Address Numbers										
1.									STD Code				
		•							Tel.	No.			
		•							Fax No.				
		•	City:					Mobile					
		•	Pin Code:						E-mail				
C N	I Name & Basisa	_4:	A -l -l								•		
S No.	Name & Design	ation											
		•							Code	!			
2.								Tel.					
					Fax No.								
					Mobile								
						E-mail							
									Code	!			
3.								Tel.					
								Fax					
			City: Pin Code: Mol				Mob	obile E-mail					

4. Location of Offices in India					
S No.	Name of Head	Address	Numbers		
1.			STD Code		
			Tel. No.		
			Fax No.		
		City:	Mobile		
		Pin Code:	E-mail		
2.			STD Code		
			Tel. No.		
			Fax No.		
		City:	Mobile		
		Pin Code:	E-mail		
3.			STD Code		
			Tel. No.		
			Fax No.		
		City:	Mobile		
		Pin Code:	E-mail		
5. Turn	over for last three years	(All amounts in Indian Rupe	ees and in Crores only)		

5. Turnover fo	or last three years	(All amounts in Indian Rupees and in Crores only)				
Year	Period (Month/Year) From To	Total Turnover of the Company	Turnover Projects.	from	HPC	Net Profit figures
2017-2018						
2016-2017						
2015-2016						

6. Certifications	Yes/No (Indicate the level wherever it is applicable)	Valid up to

7. Disk Based Archival HPC Storage Solution	Site	Details & Date of Installation

Add separate sheet, if necessary

Sr. no	Name & Address of Customer	Contact Person & Tel.No	HPC details	Value in crores (optional)	Applications being used (optional)	Date of Installation
8.1 F	rojects successfully com	pleted during las	t 3 years		-	
1.						
2.						
3.						
8.2 P	rojects successfully supp	orted for minimu	m 3 years			
1.						
2.						
3.						
9.0 /	a separate sheet, if necest that the state of the state o	for each project				
	a separate sheet, if nece	ssary				
(i)						
(ii)						
(iii) (iv)						
(v)						
(vi)						
unde the ii	ertaking This is to certify that ertakes to abide by all the enformation furnished in t In the Event of any of ejected and not considere	e terms & conditi he EOI document above information	ions mentioned s is true and co	in the EOI docui	ment. It is furthe	er certified that
Date	:	Si	ignatures:			
Place	e:	N	ame:			
	Seal	D	esignation:			

8. Details of sites/customers where similar solutions deployed

Format of the Integrity Pact

PRE CONTRACT INTEGRITY PACT

General

This pre-bid-contract Agreement (hereinafter called	the Integrity Pact) is made or	າday o
the month of 2018, between, on one hand, the	e Director IITM, Pune actir	ig through Shr
, Designation of the officer, Ministry/ Departmen	nt, Government of Indian (here	inafter called the
'BUYER", which expression shall mean and include, unless the	e context otherwise required,	his successors in
office and assigns) of the First Part and M/s	represented by Shri	, Chie
Executive Officer (hereinafter called the 'BIDDER/Seller" which	n expression shall mean and in	clude, unless the
context otherwise requires, his successors and permitted assig	gns) of the Second Part.	

WHEREAS the BUYER proposes to procure (Name of the Stores/Equipment/Item) and the BIDDER /Seller is willing to offer/has offered the stores and

WHEREAS the BIDER is private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is a Ministry/Department of the Government of India/PSU performing its functions on behalf of the President of India

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to :-

Enabling the BUYER to obtain the desired said stores/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERs to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto agree into this Integrity Pact and agree as follows:-

Commitments of the BUYER

- 1.1 The BUYERE undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 The BUYER will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERs the same information and will not provide and such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERs.

- 1.3 All the officials of the Buyer will report the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
- In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER with full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceeding, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry I being conducted the BUYER the proceedings under the contract would not be stalled.

Commitments of BIDDERs

- 3. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-
- 3.1 The BIDDER will not offer directly or through intermediaries, any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- 3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration Reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER or otherwise in procuring the Contract or forbearing to do so having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favor or disfavor to any person in relation to the contract or any other contract with the Government.
- 3.3* BIDDERs shall disclose the name and address of agents and representatives and Indian BIDDERs shall disclose their foreign principals or associates.
- 3.4* BIDDERs shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
- 3.5* The BIDDER further confirms and declares to the BUYER that the BIDDER is the original manufacturer/integrator/authorized government sponsored export entity of the defense stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 3.6* The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the

BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details if services agree upon for such payments.

3.7 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

- 3.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9 The BIDDERS shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contains in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the action mentioned above.
- 3.12 If BIDDER or any employee of the BIDDER or person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an officer of the BUYER has financially interested/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filling of EOI / tender.

The term 'relative' for this purpose would be as define in Section 6 of the Companies Act 1956.

3.13 The BIDDER shall not lend to or borrow any money from or entire into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER.

4. Previous Transgression

- 4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.
- 4.2 The BIDDER agrees that if it makes incorrect statement on this subject BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5. Earnest Money (Security Deposit)

- While submitting commercial bid, the Bidder shall deposit an amount _____ (to be specified in RFP) as Earnest Money/ Security Deposit, with the BUYER through any of the following instruments:i) Bank Draft or a Pay Order in favor of _____
 - ii) A confirmed guaranteed by an Indian Nationalized Bank. Promising payment of the guaranteed sum to the BUYER on demand within three working days without any demur whatsoever and without seeking any reason whatsoever. The demand for payment by the BUYER shall be treated as conclusion proof of payment.
 - iii) Any other mode or through any other instruments (to be specified in the RFP).
- 5.2 The Earnest Money/ Security Deposit shall be valid upto a period of six months or the complete conclusion of the contractual obligation to the complete satisfaction of the both the BIDDER and the BUYER, including warranty period, whichever is later.
- 5.3 In case of the successful BIDDER a clause would also be incorporated in the Article pertaining to performance Bond in the Purchase Contract that the provisions of Sanctions for Violation shall be applicable for forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

5.4 No interest shall be payable by the BUYER to the BIDDER on Earnest Money/Security Deposit for the period of its currency.

6. Sanction for Violations

- Any breach of the aforesaid provisions by the BIDDER or any on employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitled the BUYER to take all or any one of the following actions, wherever required:
 - i) To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
 - ii) The Earnest Money (in pre-contract stage) and/or Security Deposit/ Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason thereof.
 - iii) To immediately cancel the contract. If already signed, without giving any compensation to the BIDDER.
 - iv) To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereof at 2% higher that the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the bidder from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
 - v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
 - vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
 - vii) To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the BUYER.
 - Viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
 - ix) in case where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.
 - (x) Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- 6.2 The BUYER will be entitled to take all or any of the actions mentioned at para 6.1 (i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal Code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 6.3 The decision of the BUYER to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor(s) appointed for the purposes of this Pact.

7. Full Clause

7.1 The BIDDER undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/systems or sub systems was supplied by the BIDDER to any other Ministry/Department of the Government or India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in cost would be refunded by the BIDDER to the BUYER, if the contract has already been concluded.

8. Independent Monitors

- 8.1 The BUYER has appointed Independent monitors (hereinafter referred to as Monitors) for this Pact in consultation with the Central Vigilance Commission. The details of Independent External Monitors are as below;
 - (3) Shri Arun Kumar,

Ex. Secretary, Oil Industry Development Board (OIDB),

B-38, Vrindavan Apartment, Plot No. 1,

Sector 6, Dwarka, New Delhi -110075

Email:- kumararun 53@rediffmail.com

Mob.: 9810621113

(4) Shri. Sushil Gupta,

Ex. Chairman, Central Ground Water Board (CGWB) & Central Ground Water Authority (CGWA),

No. B 702, Aravali Height,

Sector 21 C, Faridabad, Haryana

Pin - 121001

Email: - sushilanitagupta@yahoo.com

Mob.: 09999744061

- 8.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3 The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of the meetings.
- As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.
- 8.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.
- 8.7 The BUYER will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.
- 8.8 The Monitor will submit a written report to the designated Authority of the BUYER/Secretary in the Department/ within 8 to 10 weeks from the date of reference or intimation to him by the BUYER / BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

10. Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

11. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

12. Validity

- 12.1 The validity of this Integrity Pact shall be from date of its signing and extend upto 5 years or the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/Seller, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.
- 12.2 Should one or several provisions of this Pact turn out to be invalid, the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

13. I	ne parties n	iereby sigi	n this integrity Pa	ct at	on	
-------	--------------	-------------	---------------------	-------	----	--

BUYER	BIDDER
Name of the Officer	CHIEF EXECUTIVE OFFICER
Designation	
Deptt./Ministry/PSU	
Witness	Witness
1	1
2	2

^{*}Provisions of these clauses would need to be amended/deleted in line with the policy of the BUYER in regard to involvement of Indian agents of foreign suppliers.

ANNEXURE - B

This is an E- Procurement event of ITM, Pune. The E-Procurement service provider is MSTC Ltd., 225C, A.J.C. Bose Road, Kolkata-700 020.

Bidders are requested to read the terms & conditions of this tender before submitting their online tenders. Bidders who do not comply with the conditions with documentary proof (wherever required) will not qualify in the Tender process for opening of Commercial bid.

Process of E-Tender (Expression of Interest):

A) Registration: The process involves Bidder's registration with MSTC E- Procurement portal which is free of cost. Only after registration, the Bidder(s) can submit his/their bids electronically. Electronic Bidding for submission of Technical Bid as well as Commercial Bid will be done over the internet. The Bidder should possess Class III signing type digital certificate. Bidders have to make their own arrangement for bidding from a P.C. connected with Internet. MSTC is not responsible for making such arrangement. (Bids will not be recorded without Digital Signature).

SPECIAL NOTE: THE TECHNICAL BID (only) HAVE TO BE SUBMITTED ON-LINE AT www.mstcecommerce.com/eprochome/iitm

- Bidders are required to register themselves online with <u>www.mstcecommerce.com/eprochome/iitm/</u> -> Register as vendor -Filling up details and creating own user id and password and submit the details.
- Bidders will receive a system generated mail confirming their registration in their email which has been provided during filling the
 registration form.

In case of any clarification, please contact IITM, Pune /MSTC, (before the scheduled time of the e-tender).

Contact person (IITM):

Shri. Y. S. Belgude

Assistant Manager (Purchase Section) Telephone No.: 020 25904483

Contact person (MSTC Ltd):

1. Shri Tejas V Executive

Tel: 022 22882854 / +91-9535718617

2. Shri. Jamil Akhtar Sr. Manager

Tel. No.: 022 22022296 / +91-9869043055 e-mail: jakhtar@mstcindia.co.in

3. Smt. Lisbeth Dias Sr. Manager

Tel No: 022 22883501 / +91-9820158988 email: lpaadickan@mstcindia.co.in

B) System Requirement:

System Requirements are indicated under **Vendor Guide** available on Login Page of Website: www.mstcecommerce.com/eprochome/iitm

Latest version of Java software to be downloaded and installed in the system. Security level should be medium

To enable ALL active X controls and disable 'use pop up blocker' under Tools—Internet Options— custom level (Please run IE settings from the page www.mstcecommerce.com once). Prospective vendors are suggested to refer to "Vendor Guide" at www.mstcecommerce.com/eprochome/iitm.

- Part I Technical bid will be opened electronically on specified date and time as given in the NIT. Bidder(s) can witness electronic opening of bid.
- Part II Commercial bid will be opened electronically of only those bidder(s) whose Part-I Technical Bid is found to be acceptable by IITM, Pune. Such bidder(s) will be intimated date of opening of Part-II Commercial bid, through valid email confirmed by them.
- All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.
- C) Special Note towards Transaction fee: Transaction fee is to be paid by RTGS/NEFT to MSTC Limited. Vendor required to use link "Transaction Fee Payment" for generating. The detail procedure and to generate Challan for bank account details can be checked under Vendor Guide provided on Login Page of Website: www.mstcecommerce.com/eprochome/iitm

OR

Vendor Guide Can be Downloaded from below URL:

http://www.mstcecommerce.com/eprochome/Vendor-Guide-V5.pdf

- <u>NOTE:</u> The bidders should submit the transaction fee ON OR BEFORE THE PRESCRIBED DATE as they will be authorized for bid submission only after receipt of transaction fee by MSTC.
- Click on Transaction Fee Payment -> Select event no from the drop down box -> Select NEFT/ RTGS or Online
 - On selecting NEFT, the vendor shall generate a challan by filling up a form. The vendor shall remit the transaction fee amount as per the details printed on the challan without making change in the same. ake the printout of the challan and make the payment. There shall be auto authorization of payment. Bidder shall be receiving a system generated mail.
- Bidders may please note that the transaction fee should be deposited by debiting the A/C of the bidder only; transaction fee deposited from or by debiting any other party's a/c will not be accepted. Transaction fee is non-refundable.

- D) All notices. /corrigendum and correspondence to the bidder(s) shall be sent by email only during the process till finalization of tender by IITM, Pune. Hence the bidders are required to ensure that their corporate email I.D. provided is valid and updated at the stage of registration of Bidder with MSTC (i.e. Service Provider). Bidders are also requested to ensure validity of their DSC (Digital Signature Certificate).
- E) E-Tender cannot be accessed after the due date and time mentioned in NIT.
- F) Bidding in E-Tender:
- Bidder(s) need to submit necessary Transaction fees to be eligible to bid online in the E-Tender. Transaction fees are non refundable.
- The process involves Electronic Bidding for submission of Technical and Commercial Bid
- The bidder(s) who have submitted the above fees can only submit their Technical Bid and Commercial Bid through
 internet in MSTC website www.mstcecommerce.com/eprochome/iitm/ → Vendor Login → My menu→ Auction Floor
 Manager→ live event →Selection of the live event
- The bidder should allow to run an application namely enApple by accepting the risk and clicking on run. This exercise has to be done twice immediately after opening of Bid floor. Then they have to fill up Common terms/Commercial specification and save the same. After that clicking on the Technical bid. If this application is not run then the bidder will not be able to save/submit his Technical bid.
- After filling the Technical Bid, bidder should click 'save' for recording their Technical bid (In case of EOI). Once the same is done, the Commercial Bid link becomes active and the same has to filled up and then bidder should click on "save" to record their Commercial bid (In case of Tender / RFP). Then once both the Technical bid & Commercial bid has been saved, the bidder can click on the "Final submission" button to register their bid
- Bidders are instructed to use 'Attach Docs' link to upload documents in document library. Multiple documents can be uploaded. Maximum size of single document for upload is 5 MB.
- G) In all cases, bidder should use their own ID and Password along with Digital Signature at the time of submission of their bid.
- H) During the entire E-Tender process, the bidders will remain completely anonymous to one another and also to everybody else.
- The E-Tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above.
- J) All electronic bids submitted during the E-Tender process shall be legally binding on the bidder. Any bid will be considered as the valid bid offered by that bidder and acceptance of the same by the Buyer will form a binding contract between Buyer and the Bidder for execution of supply.
- **K)** It is mandatory that all the bids are submitted with digital signature certificate otherwise the same will not be accepted by the system.
- L) Purchaser reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part as the case may be without assigning any reason thereof.
- M) Submission of bid in the E-Tender floor by any bidder confirms his acceptance of terms & conditions for the tender.
 - Unit of Measure (UOM) is indicated in the E-Tender. Rate to be quoted should be as per UOM indicated in the E-Tender floor.
 - The Purchaser has the right to cancel this E-Tender or extend the due date of receipt of bid(s) without assigning
 any reason thereof.
 - The online tender should be submitted strictly as per the terms and conditions and procedures laid down on website www.mstcecommerce.com/eprochome/iitm/of MSTC Ltd.
 - The bidders must upload all the documents required as per terms of NIT / Tender Document. Any other
 document uploaded which is not required as per the terms of the NIT / Tender Document shall not be
 considered. The bid will be evaluated based on the filled-in technical & commercial formats.
 - The documents uploaded by bidder(s) will be scrutinized. In case any of the information furnished by the bidder is found to be false during scrutiny, appropriate punitive action / legal action can also be taken against defaulting bidders.
 - Bidders are requested to read the Bidder guide and see the video in the page www.mstcecommerce.com/eprochome/iitm/ to familiarize them with the system before bidding.
- In case of failure to submit the payment towards Transaction fee for any reason, the Bidder, will not have the access to online E-Tender.