OFFICE OF ADDITIONAL DIRECTOR GENERAL OF METEOROLOGY (RESEARCH)

INDIA METEOROLOGICAL DEPARTMENT

SHIVAJINAGAR, PUNE 411005



REFERENCE DOCUMENT ON

THE PROJECT PROPOSAL OF

ESTABLISHMENT OF CLIMATE DATA CENTRE AT IMD, PUNE

(A SUPPLEMENT TO THE EOI PUBLISHED ON 18TH SEPT. 2013)

(DOCUMENT DATE AUGUST – 2013) (approved by panel members on 10.6.2013)

(This document contains 11 pages numbered excluding this page)

Document on the project Establishment of National Climate Data Centre at IMD, Pune Page 0

1. BACKGROUND:

India Meteorological Department (IMD) established in 1875, at present functions under Ministry of Earth Sciences (MoES) since formation of the ministry. IMD with its large network of observatories is responsible for national meteorological services and with mandates of international cooperation in the field of Meteorology through various World Meteorological Organisation (WMO) programmes. IMD has been serving the nation for more than 135 years with forecasting and weather services. Today meteorology in India is poised at the threshold of an exciting future.

National Data Centre (NDC), Pune, is a data division of India Meteorological Department (IMD) being the custodian of all data being collected from various parts of India. This centre preserves a long time series of quality controlled data and supplies the data to various research and educational institutions and Universities, for all types of diagnostic and simulation climate and weather related studies. The Quality Assurance and Quality control (QA/QC) procedures are applied on these data towards obtaining climatological information and usable in models for prediction with precision.

2. PROPOSAL OF NATIONAL CLIMATE DATA CENTRE AT IMD, PUNE:

The National Climate Data Centre (NCDC) sought to be developed, is aimed at improving the existing data management activities of NDC with upgrades both in terms of technology and infrastructure. This will include fast data acquisition from different media (internet, SMS, VPN, etc.,) on real-time and near real-time, monitor and report with auto-messages on reception/non-reception, QA/QC process based on limits/extremes, threshold ranges, etc., as per WMO standard procedures before the final archival in RDBMS with their meta-data. Further, NCDC should facilitate (i) auto-scheduled weather and climate products prepared for a defined spatial and time range using the archived data, (ii) on-line payment and data supply management system, (iii) Climatological information services and (iv) Data access and net-centric retrieval operations with web based and GIS enabled tools for visualization of data, product generation and analytics for all types of meteorological data. It is also required to provide integrate with other existing databases in IMD (Satellite, Seismic, Radar, etc.,) as well as those centres of IITM, NCWMRF, INCOIS, etc.,

3. PRESENT STATUS OF EXISTING DATA CENTRE:

Different types of data received at NDC in batch despatch are processed for their quality and then permanently archived. In the recent past, under the modernisation programme, the observational networks were expanded and upgraded with installations of Automatic Weather Stations (AWS), Automatic rain-gauge stations (ARG), and other automatic surface and upper-air atmospheric observations. A data management system named CliSys has been installed for enabling both real-time and non-real-time ingestion and control procedures with built-in tools for all operations. Data are archived along with their Meta data information (eg., station location, topography, instrument, etc.). The existing system with data tools for production enables retrieval of basic data and value additions in display, graphical and text formats. Around 1500 users per annum are supplied with data. Some educational institutions have registered with IMD for data requirements.

3.1. DATA RECEPTION - DATA TYPES, MODES AND FREQUENCY:

(i) MANUAL OBSERVATIONS

S.N.	Data Type & Source Points	Authority / Location	Reception Form	Mode of reception	Priority	Return Path	Frequency	Latency Period (Validation by concerned Centre Less than)	Reception type
1	Surface Data (550)								
	Synoptic Hours	MOs	SYNOPs	AMSS	1	e-mail/SMS	3 hourly	3 Hrs	Text file/BUFR
		MOs/MCs	MMR Hand held Data Logger	FTP/e- mail/SMS	2	e-mail/SMS		3 Hrs	Text file
		MOs/MCs		web form interface	3	e-mail/SMS/		week	Text file
	Day's Summary	MOs	SYNOPs	AMSS	1	e-mail/SMS	Once (03 UTC)	3 Hrs	Text file/BUFR
		MOs/MCs	MMR Hand held Data Logger	FTP/e- mail/SMS	2	e-mail/SMS		3 Hrs	Text file
		MOs/MCs		web form interface	3	e-mail/SMS		week	Text file
2	Upperair (RS/RW/PB) (36+65)	MOs	TEMP	AMSS	1	FTP/e-mail/SMS	6 hourly	6 Hrs	Text file/BUFR
		MOs	Register Form	NDC web interface	3	e-mail /NDC web interface			Text file
3	Rainfall	MOs	in the form of Days summary	As part of SYNOP(AMSS)/ NDC web interface	1/2/3	FTP/e-mail /NDC web interface	Once	3 Hrs	Text file/BUFR
	(6000)	State rain- gauges Through HS		NDC web interface	2/3	NDC web interface	Monthly/Yearly	week	Text file/Excel/E- mail/dBase
	DRMS (3000)	MCs	HS	FTP/MK -rain	2/3	FTP/e-mail	Once	One day	Text / MK-rain
4	Autographic Rainfall(540), Pressure(160), temp.(180), R.Hum(180), Wind(60), Sunshine(70)	MOs / MCs	NDC format	NDC web interface	3	e-mail /NDC web interface	Once	6 Hrs	Text
5	Ozone (5)	MOs /MCs	NDC format	NDC web interface	3	FTP/e-mail	Schedule (offline)	One day	Text
6	Radiation (45)								Text / BUFR
7	Marine	Gloabl	Ship Message	AMSS	1	Nil	As per the schedule		Text / BUFR
			GCC	IMMT format	3	e-mail	Once in three offline		IMMT format
8	Agromet Data Evp(89)ET(47)Moist(46)CWS (230)Dew100)								Text/ e- mails/SMSs/BUF R
9	Archived data	Text	Predefined formats	Predefined formats	3		offline		Text
10	METARs Current Weather (75)		METARs	AMSS /FTP	1		AMSS/FTP/e- mail/SMS	Every half an hour	Text / BUFR
11	Misc. data Radiometer-sonde Highspeed wind recorders, data loggers (10)				1		offline		Tabular / text files/
12	Environment data (10)		format				Offline		Tabular / text

(ii) AUTOMATIC WEATHER STATIONS:

S.N.	Data Type	Reception from	Reception Form	Mode of reception	Priority	Return Path	Frequency	Reception type
1	AWS (1500)							
	SYNOPS	AWS	Mobil Synop	FTP/AMSS	1		Every hour	Text / BUFR
		ARG	Mobil Synop	FTP/AMSS	1		Every hour	Text / BUFR
		AWS – Agro	Text	FTP/AMSS	1		Every Hour	Text / BUFR
2	Radiation (45)	Automatic Stations	Text	FTP/AMSS	1		Every hour	Text / BUFR
		MOs/MCs	MMR	Data logger	2	FTP/e-mail/SMS		Text
3	Marine	Bouys and Ships	Ship Synops (Mobil Synop)	AMSS	1		Every hour	Text / BUFR
4	Aviation data (75)	Airports	METARs and SPECIs	AMSS	1	e-mail/SMS	Every half an hour	Text/BUFR

3.2. EXISTING DATA NETWORKS AVAILABLE:

- (I) BSNL (10 Mbps) / NKN (100 Mbps)
- (II) VPN/ LAN with suitable securities/firewalls

3.3. EXISTING NON-ICT COMPONENTS AVAILABLE:

- (I) SPACE ABOUT 600 SQFT (GROUND FLOOR)
- (II) A/C (CENTRALISED CHANNEL)
- (III) UPS / GENERATOR (COMMON)

3.4. SIZING AND FUTURE PROJECTIONS:

a) DATA POINTS:

As of now, 700 GB (approx.) data are in the archives. The Data Points of AWS, ARG are likely to increase (max. 5000) by 5 years. Some of the offline data transfers could be upgraded to real-time ingestion. The augmentation and expansion network progress would cause for increased inflow of real-time data for permanent archival. A real-time data size of 15 MB is expected to flow every day or depending on the observational frequency (10 mins./hour/24 hrs.). In addition, data in near-real time / off-line are expected to be received in batch-files (to a maximum of 20 MB per day) at NDC.

Storage and Projections :

•	Capacity for	Recent	data :	(upto	5 yrs.)	: spare	100 %
---	--------------	--------	--------	-------	---------	---------	-------

•	Older data	: spa	re 75%					
•	Additional Sources	:	100%					
•	Remote Additional (only links)	:	400%					
b)) DATA USERS:							
(I)	Departmental (for data acquisition, pr	100						
	(Only view / display privilege)	1500						
(II)	Non-Departmental (for data / Registe	1500						
	(Guest / view / display)	3000						
(III)) Concurrent users:	10 %						
(IV) Projections			10 % per year				

Document on the project Establishment of National Climate Data Centre at IMD, Pune

- c) DATA LOAD: Maximum of 1 GB with average 10 MB (for Dept.) and 10 MB (non-dept.)
- d) APPLICATIONS (Complex events): 20 GB (Max. at a time) & 10 GB (average)

4. SCOPE OF PROPOSED TECHNICAL WORKS:

4.1a: DATA RECEPTION / INGESTION:

Design and develop web-based formats of various types of data for ingestion from different modes and formats.

- (i). Modes
 - o e- mails
 - o SMS
 - o FTP
 - AMSS / VPN (Directly from the Mirror-RTH available at Pune)
 - WEB based data entry forms
- (ii). Formats
 - o Text
 - o Excel, dBase
 - Coded Messages (SYNOP, SYNOP MOBIL, TEMP, METAR, BUFR etc)
 - o Data loggers
 - Off-line loading (text, tabular form, excel, dBase)
 - Existing data from the database
- (iii). Data monitoring
 - Generate automatic alert / confirmation messages within pre-defined latency period from source station
 - o for non-receipt of data from a particular station
 - o for non-receipt of parameters expected
 - for non-receipt of validated data
 - Visual display of the data reception / non-reception in GIS map form (for a particular hour of observation)
 - Data type wise (Surface, Upper-air,.)
 - Parameter wise
 - Visual display of the data reception / non-reception in tabular form (for a particular time of observation)
 - Data type wise (surface, upper-air,....)
 - Station wise (name, location index,...)
 - $\circ \quad \text{parameter wise} \quad$
 - Report generation
 - Listing format
 - Generating alert messages
 - Documentation and statistics
 - Log generation at each stage
 - (iv) on-line data Quality controls
 - \circ $\;$ Doubtful data to be referred back to station of origin and or other nodal offices
 - \circ $\;$ Receive the validated data and archive the Quality controlled data in the database
 - 4.1b. META DATA:

Features to be made available:

• Reference date used by the database (GMT, time zone, others);

Document on the project Establishment of National Climate Data Centre at IMD,Pune

- History of the values ascribed to the meteorological parameter and any associated flags;
- Instrument used to record the observation, together with more fine detail on its own maintenance program, tolerances, internal parameters, etc;
- Owner/authority/user of the observatory;
- Full details of the station, location (state/district/met. Sub div.), and its history;
- Details of observations in effect at the time and its history;
- The inventory of the elements stored in the database, their units, their boundaries;
- Topographical and ground-cover details of the site, information on surrounding trees, images buildings, etc, and how these have changed with time.
- Updation by respective stations through a login through various networks
- WMO Information System (WIS) compliant. (http://www.wmo.int)
- For more information, refer to "Guidelines on Climate Metadata and Homogenization" (WMO 2003b) in the World Climate Data and Monitoring Programme series of publications.
- Provision for accommodating updates as per WMO guidelines.

4.2. QUALITY CONTROL (QC) PROCESS:

Level 1: QC (fields/elements/parameters/record)

- o Syntax checks
- Duplicate checks
- Gross Limit Outliers(against a declared data set of normally expected values specific to reporting station)
- Internal Consistencies between parameters (details will be provided at the pre-bid stage).
 Level 2 : QC
- a. Time Consistency Check for the variation in the parameter value with the time (hourly/daily)
- Deviation from climatological means (climatological tables will be provided)
- Deviation from previous value
- **b.** Spatial consistency Check for changes spatially
- Display maps to visualize the spatial distribution
- Apply Interpolation techniques to see the variation (methods to be specified)
- c. Quality control flags
- assign to each parameter failing the checks listed
- flags will be utilized for filtering of data used in the displays (maps and tables)and also used for sending messages of alerts and validation
- Pending flag logs will be created and displayed at monitoring and observatory ends for reminders and reporting to different levels.
- Flag removal will be a mix of automation and manual override
- Proper linking would be required with archival into RDBMS after quality control procedures as well as towards dynamic updations and/or preparations of catalogues.
- o Additionally, refer WMO 305 Chapter 6 for QC procedure for surface and upper-air data.
- Similar kind of Q/C procedures for the other types of data.
- 4.3. **DATA STORAGE**: Data storage Policy Hierarchical Mechanism (High, Low level, Tape Lib) 4.4. BACK-UP POLICY:
 - Scheduled / configurable / optional backups
 - Incremental –every day

- Full back-up once a week
- o Scheduled / Automatic back-ups on to Off-line / external storage media
- o Optional back-ups in case of emergency, etc.,

4.5. DISASTER RECOVERY SYSTEM (DRS) AT IMD, (NWP) NEW DELHI PREFERRED:

- Mirroring all activities of Control site
- o Data after carrying out the QC
- Full functionalities
- o All Metadata including eligibility, authorizations for data access, etc.,
- Ensure minimum downtime
- o System backup on media and restoration- to be demonstrated
- Mock-drill of DR system annually twice

4.6. DATA PRODUCT GENERATION AND RETRIEVAL ACTIVITIES:

4.6.1. **TYPES OF EXTRACTION**:

- a. Basic Data and products from data base with criteria of
 - Location (s) selection using
 - (i) Stations from a pre-defined Area (State/District sub-division boundaries)
 - (ii) Station-list supported by drop-down / pop-ups
 - (iii) Grid-wise (latitude/longitude) if pre-defined area
 - Type of Data (automatic pop-ups for next selection)
 - Parameter (s)
 - Period (From and to year/month/ date/hours)
- b. Extraction of Special requirements (Extremes, threshold based)
- c. Analytical tools (interactive) like, statistical, graph Plots, GIS enabled, etc., ,for extracted datasets
- d. Selection of Output formats (select from text, excel, html, net CDF, grib, etc.,)
- e. Enable Confirmation once selection is over
- Must have similar and suitable links with commercial module also wherein the data will be provided to the commercial user after going through appropriate checks.
- Administration of retrieval functions to generate
 - Log reports of users
 - Data retrieved, products, etc.,
 - authorizations and privileges for various user's levels
 - Policy on Restrictions on data size, types, tools, etc.,
 - Retrievals / Extractions by Data processing on delayed (non real-time) data
- Scheduled Automatic generations of products & pre-formatted/customized reporting
 - Standard Table form Climate Normal (for various parameters)
 - Pentad normals
 - Hourly to daily
 - Daily to weekly
 - Daily to monthly
 - Monthly /Annual Summary (Map and Table form)
 - Any other desired products :
 - Stations specific, Frequency Occurrences events, Wind rose, Area specific state/district level values, maps, charts, etc.,
 - 4.6.2. APPLICATION /ANALYTICAL TOOLS:

Document on the project Establishment of National Climate Data Centre at IMD,Pune

- Standard Statistical Tools (such as Descriptive Statistics Mean, Mode, Median, Variances, Kurtosis, skewness, etc., Time series Analysis and testing techniques, Analysis on discrete and continuous data sets, Functional / Frequency curve plots, Sigma and Box plots, Scatter diagram, Regression and correlations, Interpolations, Multi-dimensional and Multi-variable analysis, Factor analysis, Cluster analysis, canonical mapping, etc., Data normalization, homogenization, Missing value techniques/smoothening etc., Probability of Maximum values like PMP, Assured Max. rainfall, etc.,)
- data mining
- Return period evaluation analysis
- GIS base map & layers for India with different types of networks / locations
- Gridding the data using interpolation (specific type desired/default)
- Provision to Integrate with any other models as tools / library

4.6.3. E-COMMERCIALISATION:

(i) **New Registration/Login Module**: Basic user details: Date, Name and address details, user category, registration etc., with add/modify/delete, update facility & suitable authentication procedure

(ii) **Data Request Module:** Allows to select type of data, frequency, region/location, period, output file format, address and mode for dispatch, requirement of analytical tools for value additions, etc., get confirmation of selection completion,

Once request completed go to RETRIEVAL/EXTRACTION (for non-payment category)

Else (for only supply against payment category)

Estimate the cost based on values/types of data for CONFIRM; then direct to PAYMENT Module

(iii) **Request Status Module**: Status of request, history of requests, pending requests, track – details with other module, update, keep alerts, etc.,

(iv) **Report Module**: Generate reports on data supplied, user wise, weekly/monthly/any period wise, revenue statements, Taxes details, etc.,

(v) **Payment Module**: Standard and reliable /GEPG (Payment details (instructions) step-by-step, Mode of payment options (net-banking / credit/ debit cards) process, Successful or Return attempts ,alerts in case of failures, alert for logs for revenue reports), reimbursing the money back to user's account in case of wrong/over payment made from the customer's bank account.

Once completed proceed for RETRIEVAL / EXTRACTION and Supply process

4.6.4. CLIMATE SERVICES:

Web page: Login, accessibility for data, analytical tools, standard products/displays, etc., links to other data bases of IMD / (Home pages) institutions under MoES

4.7.a. RELATED ICT WORKS - GENERAL:

- Supply, Install, configure, commission and maintain all necessary and adequate accessories for respective equipment and/or products supplied for establishment of a state-of-the-art Climate Data Centre with latest proven technology.
- The system to be developed should be a completely new, self-sufficient and independent with all upgraded facilities enabled having hot standby mode of configuration for redundant mode of system operation. Any existing system can be interfaced with the new system depending upon the requirement.
- Provide integration of the hardware, software, network components, peripherals, etc., required for the application deployment (includes existing infrastructure and additional hardware procured)
- all web based tools, utilities and interfaces (customization required for operational convenience, functional flexibility and user friendly appearance must be carried out with the complete interaction with user)

- Imparting on-site Training on system administration including h/w, s/w, operation and maintenance to IMD. The contents, period and number of trainees, will be decided by IMD. 4 Nos. of (bound form) manuals/user-guides covering all aspects of system activities should be supplied by the vendor
- Once the functionalities, storage and data base integrated and established with all features, all the historical data available in the existing storage need to be migrated after proper testing and to the satisfaction of IMD.
- Carry out user acceptance tests
- Warranty support for one year from the date of completion of acceptance test
- AMC / Post-warranty support for FIVE years after completion of the warranty
- Technical support for 24 x7 for all kinds of s/w and h/w of the system during entire period of warranty / AMC.
- For licensed tools/ utilities, all the software (O/S, Application etc.) should be with lifetime validity period.
- (i) NETWORKS:
- Broadband / VPN connectivity
- SMTP gateway Mail Server
- SMS Client Servers
- GPRS interfaces
- Routers / firewall layer -3 switches
- (ii) OS/ STORAGE / BACKUP:
- Unix based OS at server level and Linux based at work station level (preferable)
- Or Linux OS at both levels
- SAS/ SATA storage with Backup on DLT tape (backup) (3 tiered)
- Storage server 100% up time
- Storage controller, networked
- Data server hot standby
- Monitoring terminals (reception, processing and health, etc.,)
- Buffer server at data ingest end hosting Q/C programs and monitoring programs

(iii) APPLICATIONS:

To accomplish fast data retrieval and large application tools following are required:

- Back-end, High Power Computing Systems
- links to Application Server with tools (e.g. visualization, data analytics., etc.)
- adequate memory, high-speed connectors
- (iv) PROPOSED WORKS OF SOFTWARE / UTILITIES

The facilities (mentioned at 4.1 to 4.6 above) at NCDC sought to be developed comprise of development and deployment of suitable user-friendly applications (browser-based with GUI), with a high-degree of customisation at various levels. <u>Vendors may obtain all the necessary details</u> required for these purposes at the stages of pre-bid and / or contract submission.

- Design and develop user-friendly and GUI tools for the activities of data acquisition, monitoring, quality processing, archival, data retrieval, data analysis, commercialisation,
- generate auto-message, alerts, sending / receiving the data reception status to ensure acquisition within specified / desired time latency else to report to the originating Met observatory station or met centre or regional centre responsible and concerned
- Prepare GIS base maps (high-resolution/up to district levels) with political boundary and tools for meeting all the functionalities explained
- Auto-flagging the erroneous elements / parameters need to be flagged and sent back to the respective regional centre (real-time data) or responsible section for correction based on manuscript (for past /delayed data) (based on levels 1 & 2 control checks)
- Alert messages and suitable actions at various levels, in case of non-receipts / pending data

- Store Corrected data in the database both in terms of meta data and also physical data after successful checks (i.e., 2 level controls)
- Prepare Data catalogues, meta-data documentation, on data archived, cost-value tagged, etc.
- Scheduled and optional back-up procedures
- Migrate and upload all existing data in various digital media and formats into the new system
- Design suitable Disaster Recovery (DR) with data and functionalities at DR site (Delhi)
- Authorisation of user categories, setting-up levels of authorisation, privileges, Data distribution
- Provide Robust search engines for fast retrieval of basic data -- based on selections of locations, meta-data details, types of data, parameters, period, catalogues, etc.,
- Develop tools for generation of specialised products (Scheduled & optional) such as daily, weekly, monthly, pentads, climate normal, extremes as well as reports of user-accounting, administration, etc.,
- Integrate retrieval and applications tools to enable value additions to data
- Facilitate various modules towards catering the Commercialisation / Online Payment for Data supply and its management System
- Secured and High data availability, 24 x 7 content facility
- Ensure that the current systems are not affected during the migration
- provide the FIREWALL and other data security wares/ components/products for ensuring the safety and security of the data base in their proposal
- Provision of detailed user guide/help on different active screens (dynamic)
- Provision of suitable help menus
- Suitable on-site training including hands-on experience on all the modules & functionalities of the system
- Standard software Licensed (preferred) with technical supported open source
- Standard Web Tools : like WEBSPHERE, JBOSS, WEBLOGIC
- Scripts using SQL, POSTGRE, etc.,
- 4.7.b. NON ICT RELATED WORKS:

SITE PREPARATION: Requirement Civil (floor/module), Electrical (A/C, generator, UPS, etc.,) to suit the specifications of HW equipments servers / System.

5. VENDORS ELIGIBILITY CRITIERIA:

5.1. General Criteria

- a. A bidding firm (prime bidder) may be a corporation/company to undertake the scope of the work defined.
- b. The bidder should be an ISO 9001:2008 certified company.
- c. In case of multiple vendors, Prime bidder shall submit a valid memorandum of Association (MOU)/ back-to back support agreement for their products among the members signed by the authorized signatories of the companies dated prior to the submission of the bid.
- d. The MOU/back-to-back support shall specify that they shall support for all spares/updates/ upgrades etc. for their products at least 6 years after commissioning of the system.
- e. The bidder companies must be a Company registered under Indian Companies Act 1956 since last five years.
- f. The bidder (prime) shall be an Information Technology Company/ IT System Integrator (SI). Only Prime bidder shall be a single point of contact and solely responsible for execution of the contract.
- g. The bidder must have company registration certificate, valid VAT/sales tax registration certificate, valid Service Tax registration Certificate and Income Tax return with Audit report from CA. Bidder shall provide an attested copy of all the above certificates along with this document.
- h. Indian firms wishing to quote on behalf of their foreign principal must be enlisted with DGS&D.

Page 9

5.2. Project Specific Criteria:

- i. The Bidder /prime bidder Company must be a CMMI Level 5 company at the time of bidding. The said certification must be at least one year prior to the date of publication of this Tender.
- ii. Applicants having a consolidated turnover of at least Rs. 50 Crores for each of the last three financial years (2009-10, 2010-11, 2011-12) from development, IT system services. Proof in this regard (like IT returns, audited balance sheet etc.) must be submitted.
- iii. Capable of providing turnkey solutions or Implementation of similar e-Governance solution in Govt or PSU (provide documentary proof for similar projects implemented during past 5 years).
- iv. Adequate system integration experience in designing, developing and implementing projects in the field of IT, establishment of data centers, for at least five years in India or overseas
- v. Should have at least 50 permanent Technical Skilled Persons in the solution proposed, minimum of 25 staff should be involved in the development of such projects with 3 yrs experience. Necessary proof should be attached. CV's of key staff should be submitted.
- vi. Should have experience of executing a minimum of three major SI projects (each worth atleast Rs.2.0 Cr) with at least ONE project for Government organizations, in the recent years 2009-10, 2010-11 and 2011-12. Bidder is required to submit attested copies of work orders and/or successful completion certificates of each such project from the client with the bid.
- vii. Bidder having full-fledged support offices/Delivery centre network across the country, particularly, at Pune/nearby city will be preferred.
- viii. IMD reserves the right to reject any or all of the bids received in response to this invitation without assigning any reasons whatsoever.
- ix. IMD will not take cognizance of any internal arrangements as may be made by the bidder for the satisfactory completion of the work as per the terms and conditions laid down.

6. TERMS OF REFERENCE:

The bidder is required to submit the following documents:

- (i) Company Profile with support of evidences as proof for the Eligibility Criteria at 5 above
- (ii) Details on the Projects undertaken such as Awarded year, Nature of Project, Client's name & Full address, Cost, Status of the project, completion with performance certificate)
- (iii) Proposed Solution Design diagram / work flow for the present IMD project.
- (iv) Proposed H/W and S/W components along with the licence details, if any, and (a) make,
 - (b) model
 - (c) quantity
 - (d) full technical specifications
 - (e) their NON-ICT requirements, etc.

Incomplete bids or those not conforming to any of the instructions provided would be summarily rejected.

(v) The technical team of the firm must be present to explain the proposal (for any technical clarifications) before the panel of IMD, when warranted.

(vi) The firms bidding for this EOI only will be considered further with regard to the project as this would form the basis for short listing process.

- (vii) All the required and relevant documents / details as sought must be accompanied with the EOI response proposal failing which the same will be summarily rejected. Therefore, firms in their own interest may ensure all the required documents are enclosed before submission.
- (viii) IMD has right to cancel / alter /relax the requirements without assigning reason. In all regards, the decision of IMD is final.

- (ix) The <u>last date</u> for submission of completed response to this EOI is <u>24th October 2013</u> <u>before 1700 hrs.</u> The completed details as required to be submitted must be sent to The HEAD, National Data Centre, Office of ADGM (Research), THE HEAD, National Data Centre, Office of ADGM(Research), Shivajinagar, Pune – 411 005, Maharashtra by SPEED POST / REGISTERED POST ONLY.
- (x) IMD will not be responsible for any delay of receipt of documents beyond the last date indicated. Late submissions beyond the last date will not be entertained.

7. CONTACT DETAILS:

THE HEAD,

National Data Centre, Office of ADGM (Research), Shivajinagar, PUNE 411005, MAHARASHTRA.

CONTACT TELEPHONE & FAX : 020 - 25535281 TELEPHONE : 020 - 25572255

EMAIL : <u>krisndc@yahoo.com</u>

WEBSITE: www.imdpune.gov.in / www.imd.gov.in

END OF THE DOCUMENT