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STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]

ParibeshBhawan, A/118, Nilakantha Nagar, Unit – VIII Bhubaneswar – 751012, INDIA

No12015 /

IND-I-CON-MISC-1314

Dt 04.10.2018 /

TENDER CALL NOTICE

Notice inviting tender for "Selection of Service Provider for Supply, Commissioning & Maintenance of the Software for Central Server for Online Continuous Real-Time Data Acquisition Systems (RT-DAS) for Continuous Emission Monitoring Systems (CEMS), Continuous Effluent Quality Monitoring Systems (CEQMS) and Continuous Ambient Air Quality Monitoring Stations (CAAQMS), for SPCB, Odisha"

Sealed Bids are invited from experienced agencies for "Selection of Service Provider for Supply, Commissioning & Maintenance of the Software for Central Server for Online Continuous Real-Time Data Acquisition Systems (RT-DAS) for Continuous Emission Monitoring Systems (CEMS), Continuous Effluent Quality Monitoring Systems (CEQMS) and Continuous Ambient Air Quality Monitoring Stations (CAAQMS) for SPCB, Odisha". The interested bidders may obtain the Bid Application Form which is downloadable from the Website: www.ospcboard.org.

The Bid Document filled in as per the prescribed format and supported with relevant documents must reach the Office of Member Secretary, State Pollution Control Board, Odisha, Paribesh A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012 or 9th November 2018, 5:00PM. The envelope must be clearly superscribed as "BID DOCUMENTS -Tender for "Selection of Service Provider for Supply, Commissioning & Maintenance of the Software for Central Server for Online Continuous Real-Time Data Acquisition Systems (RT-DAS) for Continuous Emission Monitoring Systems (CEMS), Continuous Effluent Quality Monitoring Systems (CEQMS) and Continuous Ambient Air Quality Monitoring Stations (CAAQMS) for SPCB, Odisha". The name and address of the bidder organization should also be clearly mentioned on the envelope. The Bid Document can be submitted through Registered Post/ Speed Post/ Courier. The Bid documents can also be submitted at the reception desk of aforesaid office. But the authority shall not be held responsible for any postal delay for non-receipt of Bid Document within scheduled date and time.

The Bidders/ Firms will be shortlisted on the basis of evaluation of technical bids. The price bids of the shortlisted firms will only be opened for combined evaluation of technical bid and price bid. The selection of bidder/firm shall be based under Combined Quality Cum Cost Based Selection (CQCCBS) method.

The SPCB reserves the right to reject any or all bids without assigning any reasons thereof.

Member Secretary

State Pollution Control Board, Odisha

Memo No 12016 Dt. 04.10.2018
Copy forwarded to the Administrative Officer, SPC Board, Bhubaneswar for information/office and
necessary action. He is requested to publish the tender notice in one English daily (all India edition)
and one leading Odia daily and office notice Board as per requirement for wide circulation.
Chief Env Engineer
Chief Env Engineer
0.10

Memo No 12017 Dt. 04.10.2018
Copy forwarded to the Systems Administrator, SPC Board, Bhubaneswar for information and necessary action. She is requested to host the tender notice in the Board's website for wide circulation.

Ref No. 12015 Date: 04.10.2018

Notice Inviting Tender

for

"Selection of Service Provider for Supply, Commissioning & Maintenance of the Software for Central Server for Online Continuous Real-Time Data Acquisition Systems (RT-DAS) for Continuous Emission Monitoring Systems (CEMS), Continuous Effluent Quality Monitoring Systems (CEQMS) and Continuous Ambient Air Quality Monitoring Stations (CAAQMS) for SPCB, Odisha"

Issued by



STATE POLLUTION CONTROL BOARD, ODISHA

ParibeshBhawan, A/118, Nilakanthanagar, Unit-VIII, Bhubaneswar – 751 012, INDIA **September, 2018**



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STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]

ParibeshBhawan, A/118, Nilakantha Nagar, Unit – VIII Bhubaneswar – 751012, INDIA

1.0. Introduction

1.1. About SPCB,

Odisha

The State Pollution Control Board, Odisha, a statutory organization is responsible for enforcement of the provisions of (i) The Water (Prevention & Control of Pollution) Act, 1974, (ii) The Air (Prevention & Control of Pollution) Act, 1981, and (iii) Rules framed under the Environment (Protection) Act, 1986. The abatement and control of pollution is a key role which is done through regular monitoring and constant vigil of various environmental components. With the advancement of technology the monitoring trend is fast changing. Introduction of online continuous real-time monitoring is the recent feature being used to keep a watch on industrial pollution. Pollution monitoring data generated from industries on continuous basis, with the help of real-time monitoring Systems, needs to be checked for authenticity and validated for policy planning, regulatory and pollution prevention purpose. The task of validation and management of real-time monitoring data can be handled through customized Systems and software in a better way and this has led to the concept of this project. SPCB, Odisha has already implemented the RT-DAS since 2012. In the meantime Central Pollution Control Board (CPCB) has come up with several guidelines and protocol for online monitoring and real time data acquisition of environmental parameters and uploading the same with servers. Therefore to incorporate the latest requirements, SPCB Odisha has decided to procure a updated software of RT-DAS for effective, acquisition, handling and maintenance of huge datasets.

SPCB, Odisha now intends to invite a tender for "Selection of Service Provider for Supply, Commissioning & Maintenance of the Software for Central Server for Online Continuous Real-Time Data Acquisition Systems (RT-DAS) for Continuous Emission Monitoring Systems (CEMS), Continuous Effluent Quality Monitoring Systems (CEQMS) and Continuous Ambient Air Quality Monitoring Stations (CAAQMS) for SPCB, Odisha"

1.2 Objective:

The broad objective of this project is to select an expert agency/ service provider who will Develop, Supply, Commission & Maintain the Software for Central Server for Online Continuous Real-Time Data Acquisition Systems (RT-DAS) for Continuous Emission Monitoring Systems (CEMS), Continuous Effluent Quality Monitoring Systems

(CEQMS) and Continuous Ambient Air Quality Monitoring Stations (CAAQMS) for SPCB, Odisha

The specific objectives of this project are as follows:

- 1. To acquire accurate and tamperproof data from CEMS and CEQMS and CAAQMS installed at different industry/ other sites (hereinafter "Sites") in Odisha through *Y-Cable arrangement* without any intermediate conversions, logics or changes.
- 2. To detect exceedance of monitored parameters for the prescribed standards and provide real time alerts to the users.
- 3. To provide a multi-client open architecture platform that supports any analyzer (make and model) and on a single integrated Central database Systems which supports all type of communication between the industry/ other units, SPCB Odisha and CPCB.
- 4. To provide a unified web based access controlled platform accessible from State Pollution Control Board, Odisha Headquarters, all its Regional offices and all sites in the state based on the given authorization level.
- 5. To migrate the existing database of RT-DAS State Pollution Control Board, Odisha to the new Central Server Software.
- 6. To develop Android and iOS based mobile apps.
- 7. To create dedicated and user friendly dash board for Industry/ Other Units, SPCB and CPCB Officials for reporting and monitoring of Effluent, Emission and Ambient air parameters.

2.0 Scope of Work

The Central Software should have a web application to view, generate default reports, analyze the collected data, generate custom reports and corroborate with industry/ other units for various exceedance and failures. The web application should be supported on major browsers like Fire-Fox, Chrome, Safari, and Internet Explorer 11. The user interface should be responsive and support rendering on tablets, smart phones and desktops. The selected service provider will also need to migrate the existing database of State Pollution Control, Odisha to the Central Software Platform being developed under this project. Mobile applications for Android and iOS platform are also to be developed for use by State Pollution Control Board, Odisha, CPCB as well as the industries and other units. A general schematic diagram for proposed Systems is provided in Figure-1.

Environment Data-Transfer

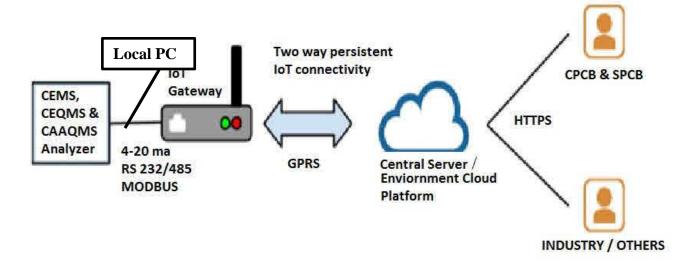


Figure-1. A general schematic diagram for Real Time Transfer of environmental data

The data from the analyzers installed at the sites need to be directly transmitted to this platform using Y-Cable followed by IOT without any intermediary PC, Server or Cloud Platform of the instrument supplier/industry.

2.1 Capabilities of the proposed software:

2.1.1 General

- 1. The most fundamental requirement is to have a universal format of connectivity that can accept real time data from any analyzers (make or model) installed in the industry/ other sites. Industry can choose any analyzer make and model that is approved by the Central Pollution Control Board for monitoring the emission, effluent and ambient air parameters.
- 2. The Systems should be a highly scalable client server application where the client software resides in the industry site and the central server software resides at the central location at SPCB, OCAC or NIC.
- 3. Provide a highly scalable Systems that can connect more than 2000 industries/ other sites simultaneously in real time with a non-proprietary highly scalable backend database suitable for storing Time Series Data.
- 4. The Systems should support multiple client software that are found suitable to the requirement and approved by the State Pollution Control Board, Odisha which can send data to the central server.
- 5. The central server software should expose authenticated Representational State Transfer (REST) based Application Programming Interface (API) for client software to transmit the data.
- 6. The client software should NOT be restricted to the requirement of static IP and should be able to connect to the server based on the exposed API.

- 7. During collection and transmission, the platform should utilize digital encrypted communication to ensure authentic data is received and data origination location (GPS coordinates) and source signature are also verified by the software.
- 8. The client software should be able to transmit the data to server using minimal bandwidth using GSM connectivity for establishing online connectivity.
- 9. The software should provide reporting capabilities to display trend graphs, configurable alerts, tabular data, charts, wind-rose chart and data validation interface.
- 10. The software should provide two-way communication and have the ability to capture and display internal registers / protocols of the field instruments.
- 11. The software should be capable of providing remote calibration of online analyzers installed in the field.
- 12. The software should have inbuilt feature to detect manipulations. This feature should also be customizable to add new detection techniques in future.
- 13. The software application should have inbuilt ability to view the IP Camera without any kind of browser plug-in, add-ons or Desktop software.
- 14. The software should be able to control the IP camera and use the PAN, TILT and ZOOM functionality without any kind of plug-ins.
- 15. The software should provide the ability to annotate the validated data with the industry comments and data quality codes. The annotations should be visible while viewing the data in the charts.
- 16. The software should be able to generate customized SMS alerts, Email alerts to the users. It should be able to generate station count list, percent data availability, data abnormality, and data exceedence in a summary sheet.
- 17. The software should be compatible with the CPCB guidelines and protocols and shall be upgraded from time to time.
- 18. The software should also provide ability to develop custom made on-demand reports with capabilities to export the data into PDF, CSV and Excel formats. The reports developed should be printable on any of the standard printers.
- 19. Entire Source code of the software should be provided to the State Pollution Control Board, Odisha and the Board should have the ability to review any specific module to validate the business logic and the data handling process. Strictly "NO" proprietary software or code is allowed. The application source code including the real time data captured, processed and stored will remain the property of SPCB, Odisha at all times.
- 20. The ability to generate the encryption keys for the Client side software should be provided to the State Pollution Control Board, Odisha so that the board can provide authorized keys to the individual sites for secured data transmission. There should not be any financial implication to SPCB, Odisha for generation of such keys and it should be a software feature.
- 21. Publishing of data should be at the end of the regulator and should have necessary components inbuilt in the Systems to publish valid data only.
- 22. Should have provision to share the database with the CPCB server database as and

when required.

23. The platform should support advanced Analytics on air modeling and be able to generate the following reports by default on the platform

Percentile Rose

Summary Profile

Quartile Analysis Report

Other customized reports as per requirement from time to time

- 24. The software should have data manipulation detection facility in addition to provision for creation of log files of all the events.
- 25. The client industries can access their data free of cost through RT-DAS Systems.

2.1.2 Client Side Software Requirements Data Collection & Transmission Module

- 1. The data collection and transmission module should directly connect to the analyzer installed at the industry end and fetch the data directly from the analyzer without any intermediary software or conversions and without any PC or server. The software should have no editing provision for altering/correcting the data at the industry side.
- 2. No data shall be accepted as an output from OPC Server or DCS or any other intermediate software at Industry side.
- 3. The data collection and transmission module should encrypt the data with unique client specific encryption key to ensure authentic data transfer from the industry to the central server. Only encrypted and authenticated data shall be received by the Central Server Module.
- 4. During internet connectivity failure or a communication issue with the central server, the data collection and transmission module should store the encrypted data locally and retransmit when the transmission is restored. Any such delayed transmission should be identifiable at the regulator side using data quality codes.
- 5. The data collection and transmission module should wait for acknowledgement from the server and should retransmit the data if no acknowledgement is received within the timeout period.
- 6. The data collection and transmission module should support remote analyzer configuration. The data collection and transmission module should accept remote analyzer configuration commands and update the analyzer configurations with the set value.
- 7. Each measurement should be associated with the data quality code inferred while data collection and the data quality code should be transmitted along with the data. The data quality code should indicate analyzer failures, analyzer communication failures etc.
- 8. Software should support reading analyzer configuration and report the configuration changes to the central server. Any configuration changes done at the site should have audit trial and reported to the regulator for approval in the form of work flow.

- 9. The data collection and transmission module should accept commands for calibration (auto and manual) and able to perform calibration of the analyzer locally.
- 10. The data collection and transmission module should be able to collect the data directly from the analyzer with a minimum scan interval of 10seconds.
- 11. Data collection and transmission shall be minimum 15 min or other mean average period selectable by user.
- 12. The data collection and acquisition software should be able to collect and encrypt the data locally on the industry site.
- 13. The data collection and transmission module should communicate the status periodically to the central server even when no analyzer is connected or when analyzer is faulty with appropriate data quality code.
- 14. The data collection and transmission module should auto-restart on failure or machine reboots.
- 15. The data collection and transmission module should be able to transmit the data over GSM network.
- 16. The data collection and transmission module should support any analyzer, make and model based on the configuration and protocol specific extensions (analyzer suppliers should be open enough to share their analyzer output protocol for easy data transmission digitally).
- 17. The data collection and transmission module should be customizable to support any specific protocol required.
- **18.** Data collection and transmission module should be able to support protocol extension hooks and API.
- 19. A Complete revamp from current My-SQL version to Big-Data solutions will be required looking at the huge amount of data been produced in future.
- 20. The Central Server should publish an open Application Programming Interface (API) to support different client side software. Any vendor supplying the data collection and transmission module should comply with the API. The client side software requirement shall be demonstrated at SPCB, Odisha. Data transmitted only from such demonstrated and proven client software will be accepted by the Central Server Module.
- 21. There should not be any financial burden to the client industries for this service and the Client Industries shall have the right to select their own vendor for connectivity and associated activities.
- 22. A web link (it should have option for data range selection or option for month and year selection) for downloading file in format as per requirement of SPCB/ CPCB.
- 23. The Central Server Software should have the capability to convert the data.
- 24. The service provider has to create a dashboard to capture the shutdown/ maintenance schedule of the industries on a real-time basis and should be depicted in real time graph. Same can be downloaded by SPCB officials on daily/ weekly/monthly basis for reference.

25. There should be provision in the software for auto conversion of units (e.x mg/ m³ to mg/Nm³.

2.1.3 Central Server Software Requirements

(Regulator side software):

- 1. The Central Server Module should provide backend processing services for transmitted data and a highly scalable backend database capable of storing timeseries data acquired from the industry/other sites.
- 2. The database should be able to support data storage and query for 10 years of data collected from all the sites with minimum of 1-minute interval.
- 3. The database should be scalable to support 2000+ concurrent connections and should be able to store and process more than 100 Terabyte of data.
- 4. The Central Server Module should have pre-configured threshold limits for the various monitored parameters based on the industry type as per the State Pollution Control Board directives for each of the industry/other units types.
- 5. The Central Server Module should support remote configuration of the industry/other site parameters from the SPCB, Odisha Head Quarters.
- 6. The Central Server Module should generate automated alarms and alerts based on parameter exceedance, data connectivity failure, analyzer failures, change in configuration etc.
- 7. The Central Server Module should be able to identify delayed data published from the industry site due to network connectivity failures and mark those data separately from the live connected data.
- 8. The Central Server Module should be able to identify the manipulations and present the details in easy to understand user interface.
- 9. The Central Server Module should be able to send pre-configured template based SMS and Emails for alerts and alarms generated based on the configured rules. This feature should be a built-in capability of the Central Server Module and not external application software.
- 10. The Central Server Module should have facility to transfer data to other servers including cloud servers at regulator side at periodic interval preferably daily for data backup and recovery requirements.
- 11. The Central Server Module should be able to generate report on alarms/events and exceedance with industry wise consolidation and period wise say weekly, monthly, annually etc.
- 12. The Central Server Module should provide automatic notification to the industry site and regulator inbox for all new notifications and action items like fixing communication issues, analyzer problems etc.
- 13. The Central Server Module should be able to support data encryption and security at the server side. The data received from the site should be decrypted and data authenticity ensured.
- 14. The Central Server Module should be able to collect data from the industry sites even

- when one of the central server is down and thus provide redundancy.
- 15. The Central Server Module should be able to identify which client software and version send for specific data and capture the IP address from which the data was sent for audit purposes.
- 16. The central server should be available 24x7 for 365 days for data collection. The Systems should provide automated redundancy so that industry site should be able to send the data continuously.
- 17. The Central Server Module should support data export in ISO -7168 or other compatible upgraded format.
- 18. The Vendor should provide the central server software and workstation software. The central server software will do all the data processing and storage management. The workstation software installed should provide the regulator with functionality (Web Interface Module) without the need to directly login to the central server. Minimum of one Workstation software licensed should be provided by the vendor.
- 19. The software on Regulator side should be Highly scalable database capable of storing time-series data like Cassandra, Hbase, Graphite, Open TSDB, Influxdb, IBM Informix with Time series blade or similar.
- 20. The password shall lie with the Systems Admin of SPC Board, Odisha and under no circumstances it shall be divulged to others.
- 21. Data received as such should be transmitted and no data manipulation or alteration shall be done.

2.1.4 Web-Server Interface Requirement: (Apache httpd, nginx)

a) General Requirements

- 1. To view, generate default report, analyze the collected data and corroborate with industry for various exceedance and failures.
- 2. The Web Server Interface Module should provide a User Interface presented in the browser should be very user friendly and intuitive following the best practices in web based user interface design.
- 3. The User Interface should be supported on major browsers like Fire Fox, Chrome, Safari, Opera etc. The user interface should support rendering on a Tablet, smart phones which supports these browsers.

b) Configuration Management

- 1. The Web Server Interface module should provide the user interface to configure the site, monitoring station, analyzers, calibrator and measured parameters. The detail screens for site configuration, monitoring station configuration, analyzer configuration and parameter configuration should be available.
- 2. The Web Server Interface module should have list of supported analyzers make and model for the major analyzers used in the Industry added from time to time.
- 3. The Web Server Interface module should support grouping of industry sites, industries across geographic dimensions like district, city, etc. and other custom

- attributes (like industry type) selected by the regulator.
- 4. The Web Server Interface module should allow configuration of analyzer parameters, channels etc. for a particular site.

c) Alerts and Alarms

- 1. The Web Server Interface module should provide an interface to view and list all alarms and alerts. There should be a filter to alerts and alarms in data range.
- 2. The Web Server Interface module should provide an interface to acknowledge the alarms and alerts to industry and regulator. Once acknowledged, the alarms and alerts should disappear from the list.

d) Remote Calibration

- 1. The Web Sever Interface module should support configuration of remote calibration of the analyzers.
- 2. The Web Sever Interface module should have the ability to provide various manuals/online calibration sequences, schedules for remote calibration and reports.
- 3. The Web Server Interface module should support calendar view of all the automated calibration schedule and sequence.
- 4. In case of exceedance of any emission parameters than the prescribed norms the alert Systems should display in Colour code/ SMS/ automated mail to concerned SPCB officials.

e) Security

- 1. The Web Server Interface module should have facility for Regional offices and Head Office of the SPCB, Odisha for Industries under their jurisdiction to view/ generate reports in a non-editable format.
- 2. Each industry should be able to view and generate default reports for the data generated for their industries based on the access provided.
- 3. The Web Server Interface module should support configurable user authentication levels to support different roles for Head office, Region offices and industry site access
- 4. The Web Server Interface module should support creating and managing new users and their access levels.

f) Data Validation

- 1. The Web Server Interface module should provide user interface for data validation and approval. The regulator should be able to select a particular time range and approve/reject the data with proper comments.
- 2. The Web Server Interface module should support manual and automated data validation and approval workflow to review various industry site data and approve by providing appropriate comments based on the data quality.

- 3. The Web Server Interface module should provide ability to annotate the data with the specific events/comments provided by the industry such as maintenance schedules, breakdown, analyzer fault etc.
- 4. Open API should support ISO 7168 or any other compatible Format.

g) Corroboration and Work flow

- 1. The software should support corroboration between the industry site and regulator by providing a built in workflow feature and an inbox feature. This feature should be a built-in functionality of the central server module and the web interface module and not additional software running separately to ensure that there is integration with the reporting module.
- 2. Whenever there is any exceedance or analyzer failure or analyzer connectivity failure, an action item should be generated in the industry site inbox. The industry site personnel should be able to update with the corrective actions and comments. These comments/reasons should show upon the graphs when the data for that particular period is viewed.
- 3. Industry site should be able to inform the regulator of different maintenance events (site maintenance, site breakdown, analyzer breakdown etc.) using workflow feature of the Web Interface Module.
- 4. The Systems should automatically generate events and inbox messages based on the exceedance thresholds and alerts configured.
- 5. The Systems should provide the history of communication between the industry site and the regulator for specific events/workflows.
- 6. Various events like communication failures, analyzer failures, exceedance etc. and corresponding reasons should be available for reporting. There should be standard reports for viewing industry level statistics for communication failures, analyzer failures, power failure, exceedances etc.

h) Reports

- 1. The Web Server Interface module should support standard reports for each industry site based on the exceedance threshold, hourly, daily, monthly or annual average or specific period etc.
- 2. The Web Server Interface module should have both default reports and also reports generated table by the end user as per requirements.
- 3. The Web Server Interface module should be able to support different data quality code and report data based on representativeness and data quality. Statistical significance of data should be reportable in respect to data density.
- 4. The Web Server Interface module should generate report on approved and validated data. There should also be a capability to see the raw data collected from industry site within the reports.
- 5. The Web Server Interface module should be able to generate wind rose and pollution rose based on the wind data collected from the various sites.

- 6. Grouping area wise Industries and selecting one meteorological station in that group should generate reports of pollution rose and wind rose details.
- 7. The Web Server Interface module should have capability to compare, group sector wise industries, analyzers and generate report in desired form, i.e. text, numeric and graphical.
- 8. The Web Server Interface module should support ability to export the reports data to csv, pdf and text file as and when required.
- 9. The Web Server Interface module should have provisions to accommodate printers of different model and make.
- 10. The Web Server Interface module should support ability to develop custom reports by the regulator based on the data analysis requirements. The report generated should be in both graphical and tabular form.
- 11. The software should be able to select the data quality code, the data representativeness, the time window and the site specific parameters for generating reports.
- 12. The Web Server Interface module should provide daily status of each industry site and provide metrics on data quality and representativeness.
- 13. Report should be able to calculate differential data from two parameter reading and show the trend of differential data. This feature is required for temperature difference measurements and alerting.
- 14. Should have feature to make calculations on raw data obtained from analyzer and generate alerts and reports.
- 15. The web Server interface module should provide custom reporting capabilities to support regulator's present and future requirements.
- 16. The reports should have the capability to show both raw data and approved/validated data.
- 17. There should be a provision to create custom charts from the Web Interface Module. There should be a support to add new charts and dashboards as per the requirements.
- 18. It should provide optional features such as to connect the data to the display board.

i) Live Status

- 1. The Web Server Interface module should support real time view of the data from all the industry sites for all the parameters configured for monitoring.
- 2. The Web Server Interface module should support geo-location of the industry on a map using specific latitude longitude or as per cartographic coordinates overlay on a map and present information of industry, parameters connected and present value either graphically or numerically display.
- 3. The software should be able to show the status of each of the sites in a geographic map and should show alerts and alarms based on Systems failures and parameter exceedance.

3.0 Deliverables

- Source code (Client side software, Central Server), Web Server)
- User manual
- Administrator Manual
- Data Format of different types of analyzer
- Source Code to transmit data through REST API
- Complete folder structure, ER diagram
- All credentials
- Backup data
- Security Audit certificate

4.0 Payment Terms, Penalties, Contract Period

4.1 Payment Schedule

Particular	Payment schedule
Supply of the Software for Central Server for Online	70% of the Project Value
Continuous Real-Time Data Acquisition Systems (RT-	,
DAS) for Continuous Emission Monitoring Systems	
(CEMS), Continuous Effluent Quality Monitoring	
Systems (CEQMS) and Continuous Ambient Air Quality	
Monitoring Stations (CAAQMS) for Odisha, " and Go-	
Live	
Successful User Acceptance and Security Audit	30% of the Project Value
Certificate (Commissioning of the	
Solution & Training to the Department Staff)	
AMC for three years excluding 12 months warranty	Half yearly payment of the contract
period	value and Repeat Security Audit
	Certificate at the beginning of the
	year

4.2 Penalty

The penalty will be imposed as below:

- 1. @ 2% on Project Value for delay by 1 week in supply & installation of solution and increases @ of 0.25% of Project Value for every additional week delay.
- 2. During the O&M phase, the deployed solution shall be running with 99.5% efficiency & uptime. Any deviation shall be liable for penalty of Rs. 1,000/- per day.

4.3 Project Timelines

The identified bidder should supply the required solution within '45' days from the date of dispatch of Notification of Award /Letter of Intent.

4.4 Contract Agreement Period

The Contract Agreement is for a period of Four years including three years warranty and the contract agreement shall be signed by the User Department with the Successful Bidder upon submission of Performance Bank Guarantee by the bidder to the User Department.

INSTRUCTION TO BIDDERS

5.0 Availability of Bid Document

The bid document can be obtained by downloading from SPCB, Odisha website www.ospcboard.org

Procedure for submission of bids/tenders:

Each bidder shall submit offer in three sealed envelopes A, B and C. All the three envelops should be enclosed in a single outer envelope and submitted, at the address stated in the table of Important Information, superscribed as "BID DOCUMENTS - Tender for "Selection of Service Provider for Supply, Commissioning & Maintenance of the Software for Central Server for Online Continuous Real-Time Data Acquisition Systems (RT-DAS) Continuous Emission Monitoring Stations (CEMS), Continuous Effluent Quality Monitoring Systems (CEQMS) and Continuous Ambient Air Quality Monitoring Stations (CAAQMS) for SPCB, Odisha"

The envelop "A" shall contain earnest money. The Envelop "B" shall contain all relevant technical documents such as evidences for doing similar nature of work, experience in the similar field, detailed list of infrastructure / available, copy of GST registration and Income Tax registration [PAN], copy of undertaking regarding not being blacklisted, terms & conditions, company profile etc. Non – production of any of the documents may lead to rejection of the Bid / offers. The envelop "C" shall contain financial offer (**price bids**) in Form C#1 and C#2.

The envelop ''C' shall be opened only of those bidders who will be found suitable and recommended by the Technical Committee. Notwithstanding anything stated above the competent authority of the Board reserves the right to assess the capability and capacity of the bidder to perform the contract, should the circumstances warrant such an assessment in the overall interest of the Board.

5.1 Important Information

Bid Submission Closing Date and	9 th November 2018, 5.00 PM
Time	
Technical Bid (Envelope A and	20 th November 2018, 3.00 PM
Envelop B) Opening Date and Time	

Bid Document Price and Mode of	Nil;
payment	Downloadable from SPCB, Odisha website
p wyo	www.ospcboard.org
Amount of EMD and Mode of	Rs. 30,000.00 (Rupees Thirty Thousand only) in
payment	the form of DD from any Nationalized bank in
payment	favour of Member Secretary, State Pollution
	Control Board, Odisha
	Control Board, Odisha
Performance security in shape of	10% of the Project Cost
Bank Gurantee	
Performance security validity period	l •
	successful completion of the project, whichever
	is later.
Bid validity period	360 days from the date of opening of bid
Project period	Four years inclusive of one year warranty period
Period of signing contract	Within 02 weeks from the date of
	dispatch of letter of notification of award.
Conditional Bids	Not acceptable and also liable for
	forfeiture of the EMD.
Entitlement for Bid submission	Only the software development firm who is the
	actual license holder of the software shall quote.
	No Joint Venture or Consortium of any kind is
	allowed.
	Authorized Agents / Dealers are not allowed
	to bid. Suppliers/manufacturers of online real-
	time monitoring instruments of stack, effluent,
	ambient and noise are also not allowed to bid.
Currency for Price quote	Indian Rupee
Language of Bid	English
Address for correspondence in	Chief. Env. Engineer, Online Monitoring Cell
respect of technical clarifications	State Pollution Control Board, Odisha
	ParibeshBhawan, A/118, Nilakantha Nagar, Unit -
	VIII, Bhubaneswar, Odisha 751012
Contact Person	Dr A.K. SWAR ,CHIEF ENV. ENGINEER
Email	paribesh1@ospcboard.org
Address for Bid submission	Member Secretary
	State Pollution Control Board, Odisha
	ParibeshBhawan, A/118, Nilakantha Nagar, Unit -
	VIII, Bhubaneswar, Odisha 751012
·	

5.2 Conditions of Bidding Completeness of Response

a. Service providers are advised to study all instructions, forms, requirements and other information in the Bid documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the Bid document with full understanding of its implications.

- b. The response to this Bid should be full and complete in all respects. Failure to furnish all information required by the Bid documents or submission of a proposal not substantially responsive to this document will be at the Service provider's risk and may result in rejection of its Proposal.
- c. At any time prior to the last date for receipt of bids, SPCB, Odisha may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Service provider, modify the Bid document by corrigendum.
- d. The Corrigendum (if any) & clarifications to the queries from all service providers will be on the portal www.ospcboard.org.
- e. Any such corrigendum shall be deemed to be incorporated into this Bid.
- f. In order to provide prospective Service provider's reasonable time for taking the corrigendum into account, SPCB, Odisha may, at its discretion, extend the last date for the receipt of Bids.

5.3 Right to terminate the process

- a. SPCB, Odisha may terminate the Bidding process at any time and without assigning any reason. SPCB, Odisha makes no commitments, express or implied, that this process will result in a business transaction with anyone.
- b. This Bidding does not constitute an offer by SPCB, Odisha. The service provider's participation in this process may result in short listing of the service provider.

5.4 Preparation of Proposals

- a. The Technical Proposals shall contain an Executive summary giving a brief overview of the manner in which the service provider proposes to achieve the outcomes and the assessment of resources required.
- b. The service provider is expected to submit the Technical Proposal as per the format given in **Appendix I**. Submission of the wrong Technical Proposal will result in the proposal being deemed non-responsive. The Technical Proposal shall not include any financial information.
- **c.** The Financial Proposal shall be prepared as per the format given in **Appendix -II.**

5.4 Submission of Responses

- a. The service provider shall submit bid related information in 3 envelops as stated earlier.
- b. The proposal shall contain no interlineations or overwriting, except as necessary to correct the errors made by the service providers themselves. The same authorized representative who has signed the proposal shall initial the corrections.
- c. An authorized representative of the service providers shall initial all the pages of the original Technical and Financial Proposals. The authorization shall be in the form of written power of attorney accompanying the proposal and supported by evidence that the representative has been duly authorized to sign indicating name.
- d. The service provider shall submit one softcopy of the Technical Proposal in the form of a non-rewritable CD. The CD media must be duly signed using a permanent pen marker and should bear the name of the service provider.

e. Service provider must ensure that the information furnished in the CD is identical to that submitted on paper. In case of any discrepancy, the information furnished in hard copy will prevail.

5.5 The technical-qualification criterion is as under:

The details of technical qualifications required is specified under Table-1.

Table-1. Criteria for Technical Qualification.

Sl. No.	Pre-Qualification Criteria Description	Supporting Documents to be submitted by the service providers
1.	Legal Entity: Service provider must have registration Under companies Act, 1956 and also registered with the GST/ServiceTax authorities and must have completed 3 years of existence as on Bid calling date.	a) RoC.b) Copy of GST/Service Tax Registration Certificate.
2.	 Turnover: a. The Service Provider should have a minimum turnover of Rs. 5.00 crores from IT based projects with Software Application Development and Maintenance, Real Time Data Analysis Tools during any of the last 3 financial year 2015-16, 2016-17 and 2017-18 or Cumulative turn-over should be at least 10 Crores during the last 3 financial years. b. Service provider should have positive net profit after tax during each of the last three financial years namely 2015-16, 2016-17 and 2017-18 Note: Turnover in areas other than mentioned above shall not be considered for evaluation 	
3.	Past Experience The Service provider should have similar experience in Supply & maintenance of Central Server Software for Real Time Data Acquisition and Handling Systems in any State Pollution Control Board, or Central Pollution Control Board, Delhi (SPCB & CPCB)	 a) Copies of Work orders for the period 2015-16, 2016-17 and 2017-18 b) Copies of Installation and commissioning certificates. c.) Copies of Performance Certificates
4.	The Bidder should be ISO 9001 certified for quality of development of data related software. The Bidder should have ISO 27001 certification for Information Security Management	Copies of the Certificates to be enclosed

5.	Manpower Deployment	
	The Service provider should have employed minimum 20 IT Professionals as on bid calling date. For this purpose, the term 'IT professional' means a person with a graduate degree or a higher qualification in Electronics/ Computer/IT from a recognized university employed by the company.	Service provider should submit the self- certification by the authorized signatory along with CVs and Salary Slips of the professionals.
6.	Blacklist	
	The Service provider should have no record of being blacklisted by any Central/state Government, Ministry or Agency for breach of Contractual Conditions as on bid calling date. The service provider should also not be entangled in any legal disputes with any Govt. / PSU body.	Service provider should submit Self declaration that the service provider is not black listed and is not in any legal disputes as on the bid calling date. Self-Declaration Certificate to be enclosed in the bid duly signed by the authorized signatory on its Company letter head.
7.	Local Presence	
	The service provider should have a local office at Bhubaneswar as on date of bidding. Note: An undertaking in this regard should be submitted on the company letter head. If the service provider is not having Local presence, it has to open a local office at Bhubaneswar within 15 days from issue of LoI/ Work-order and same must be communicated to SPCB, Odisha for future correspondence.	Service provider should submit self-certified office address.
8.	The service provider should have prior experience working on highly scalable large scale databases suited for storing time-series data	Service provider should provide credentials for handling large volume data and data security.
9.	The service provider should have experience in hosting the services at NIC domain or any of the State data center or PSU data center with approved security audit report	Service Provider should provide details of the application hosted and security audit Certification or no vulnerability clearance.
10.	The service provider should have experience in developing Mobile application development and should have deployed at least 2 Mobile Application in Google Play store and IOS App Store	Service provider should submit the details of the mobile application and proof of production usage at the time of calling the bid.

Note:

- i.) Relevant supporting documents (all the bid pages stamped and ink signed by authorized person) should be furnished without fail otherwise the bid will be treated as "non-responsive" and rejected.
- ii.) Any service provider who offers discounts/ benefits so motto after opening of commercial bid(s) will be automatically disqualified from the current bidding process without any prior notification and also may be disqualified for future bidding processes.
- iii.) No deviations of whatsoever nature are allowed in the pre-qualification criterion.
- iv.) If the service provider is not having local presence, it has to open a local office at Bhubaneswar within 15 days from the issue of LoI and same must be communicated to SPCB, Odisha for future correspondence.
- v.) Any deviation shall be treated as termination of contract and shall attract the liability as specified in the Tender.
- vi.) Service provider shall not have conflict of interest that may affect the bidding process or the Service provider. Any applicant found to have a Conflict of Interest shall be disqualified.

5.6 Documents to be submitted along with the Technical Bid

Bid Submission Format

- a. The entire proposal shall be strictly as per the format specified in this Bid and any deviation may result in the rejection of the Bid.
- b. The documents to be submitted for Technical Proposals are:
 - i. General Information of the Service provider FormTQ#1
 - ii. Financial Turnover FormTQ#2
 - iii. Past experience FormTQ#3
 - iv. Manpower available with relevant Experience FormTQ#4
 - v. Self-Declaration Certificate FormTQ#5
 - vi. Local Presence FormTQ#6
 - vii. Understanding of the Project & Implementation methodology FormTQ#7
 - viii. Hardware Proposed with Specifications FormTQ#8
 - ix. Power of Attorney
 - x. Technical capability of the supplier by providing installation and commissioning certificates as well as performance certificates as per the projects being quoted under Past experience in FormTQ#3
 - xi. Additional documents as listed in the Bid otherwise.

5.7 Submission of Price Bid

- a. The documents to be submitted for Commercial Proposals are:
 - i. Commercial Proposal submission FormC#1
 - ii. Financial Proposal Cost Break-up FormC#2

5.8 Opening of Technical Bid

The bid documents received within the specified date and time shall be opened at the office of the State Pollution Control Board, Odisha on 20th November 2018 at 3.00 PM. Participating organizations may depute their authorized representative to remain present at the time of opening. The "Technical Bid" document shall be opened in front of the bidder's representatives and shall be examined to verify the Technical Eligibility. The bids satisfying the eligibility criteria as mentioned in the Technical Eligibility Criteria of this document shall be declared as **Technically Eligible Bid** and shall be considered for technical evaluation.

5.9 Evaluation of Technical Bid

Technical Committee will evaluate the Technical Proposals of the service providers as per the following criteria. The bidders should be ready to make presentation to the Technical Committee (Bid Evaluation Committee) on the offered solution during the technical bid evaluation. Bidders are required to focus on the parameters in the technical evaluation criteria. The venue, date and time shall be intimated to the technically eligible bidders 7 days in advance through email. The scoring methods to be followed in technical evaluation is provided under Table-2.

Table-2. Scoring Pattern for Technical Evaluation

Sr.	Technical Parameter - Checklist	Max
No.		Marks
I.	Past Experience & Turnover	40
1.	The Bidder shall have similar experience in Supply, Commissioning & Maintenance of the Software for Central Server for Online Continuous Real-Time Data Acquisition Systems for Continuous Emission Monitoring Systems (CEMS), Continuous Effluent Quality Monitoring Systems (CEQMS) and Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in at least '1' SPCB/ CPCB during the last 3 years. The marks to be awarded @ 5 marks for each project subject to maximum of 30 marks	30
2.	Organization Strengths (Turnover ad and Manpower for last 3 years); Max 5 marks each for Turnover and Manpower NB: The Firm having highest Turnover/ Manpower will get max score & the other firms obtaining the turnover within the range of maximum to minimum turnover/ Manpower will be assigned scores on prorate basis.	10
II.	Engagement Approach (bidder to elaborate)	60
1.	Proposed Solution Design including proposed team structure (Form-TQ#7)	40
2.	Presentation on above with live Demonstration of the capabilities of the Central Server Software aligned with proposed solution demonstrating the following features. • Compatibility with protocol and guidelines of CPCB. • Data availability and Data abnormality • Compatibility with CPCB protocol and guidelines • Acceptance of multi-client industry side software • Remote calibration of the Analyzer • Real Time Alerts, SMS and email • Demonstration of Delayed Data Handling • Demonstration of Analyzer Diagnostics Capture in Real Time • Demonstration of Pre-build Reports and Custom Reports • Demonstration of Security Features for different logins • Demonstration of the Integrated Workflow for Industry Communication • Mobile application in IoS app store / Google Play store	15
3.	Existing capability for Operations & Maintenance along with helpdesk setup and escalation mechanism	5
	Total (I +II)	100

All the Technically eligible Bids shall be evaluated by SPCB as per the following evaluation criteria and shall be assigned marks as per the respective scoring criteria. The bids securing at least 60 out of full mark 100, in the technical bid evaluation process shall be considered as "Technically Qualified" bid.

5.10 Opening of Price Bid

The Price Bids of the Technically Qualified bidders only, shall be considered for opening. The Date, Time and Venue of opening of the price bid shall be communicated 7days in advance to the Technically Qualified Bidders through email. The authorized representatives of the Technically Qualified bidders may be present during opening of the financial bid. The financial bids shall be examined for it's conformity to the specified format (Form C#1 and Form C#2). The Price Bid submitted in formats other than the specified format shall be summarily rejected. The price bids with discrepancies/ mismatch between the quoted value in figures and in words, incorrect calculations shall be summarily rejected. The price quotations in the valid price bids shall be noted and shall be communicated to the authorized representatives of the respective bidders representatives present at that time.

5.11 Combined Quality Cum Cost based Bid Evaluation.

Due to the nature of technicalities involved in the work, the evaluation of the offer will be based under Combined Quality Cum Cost Based Selection (CQCCBS) and as per the procedures described in this Tender Document which is in accordance with the Office Memorandum 42280F, dtd. 26-09-2011 of Finance Department Govt. of Odisha in line with "Manual of Policies and Procedures for Employment of Consultants" issued by Department of Expenditure, Ministry of Finance and available in the website of Ministry of Finance (www.finmin.nic.in)

Proposals will be ranked according to their combined technical (St) and financial (Sf) scores using the following weights to technical bids and to financial bids.

• Technical bid: :70%

• Price bid: :30%

The lowest price bid or *minimum price quoted by any bidder*(Fmin) will be given the maximum financial score of 100 points. The financial scores (Sf) of the other price bids will be computed as per the formula given below:

Sf = 100 x (Fmin / Fb)

Where,

 $Sf = financial\ score\ for\ the\ bidder\ under\ consideration$

Fb = price quoted by the bidder under consideration

Fmin = *minimum price quoted by any bidder*

In case of technical proposals, the score will be given as Technical Score (St) x 0.70.Bids will be according to their combined technical (St) and financial (Sf) scores using the weights St = 0.70 (the weight given to technical proposal); Sf= 0.30 (the weight given to the price proposal). The combined technical and financial score (S) for the bidder under consideration shall be computed as per the formula given below:

$$S = (0.7 X St) + (0.3 X Sf)$$

The firm achieving the highest combined technical and financial score (S) may be invited for negotiations in accordance with CQCCBS approach. If negotiations fail, SPCB, Odisha will invite the Bidder whose Proposal received the second highest score to negotiate a Contract.

General Instructions

- While every effort has been made to provide comprehensive and accurate background information and requirements and specifications, Service Providers (SPs) must form their own conclusions about the solution needed to meet their requirements.
- All information supplied by SPs may be treated as contractual binding on the SPs, on successful award of the assignment by SPCB, Odisha on the basis of this Bid.

6.1 General Eligibility

- SPs marked / considered by SPCB, Odisha for non-satisfactory past performance, corrupt, fraudulent or any other unethical business practices shall not be eligible.
- Breach of general or specific instructions for bidding, general and special conditions of contract with SPCB, Odisha or any of its user organizations may make a firm ineligible to participate in bidding process.
- The selected single Service Provider (SP) shall not outsource the work to any other associate / sister concern / franchisee / 3rd Party SP under any circumstances. Any violation may invite imposition of sanctions, which shall include forfeiture of the security deposit, revocation of bank guarantees (including the ones submitted for other work orders) and termination of the Contract for default.

6.2 Earnest Money Deposit and its amount(EMD)

- a. SPs shall submit, along with their bids, EMD of INR 30,000 (Rupees Thirty thousand only) in the form of Demand Draft drawn from any scheduled / nationalized bank in favour of **Member Secretary**, SPCB, Odisha payable at Bhubaneswar
- b. EMD should be valid for three months from date of bidding.
- c. No interest will be payable to the SP on the amount of the EMD.
- d. Unsuccessful SP's EMD will be discharged/ returned as promptly as possible, but not later than 45 days after the award of the contract to the selected implementation agency.
- e. The EMD may be forfeited:
 - If a SP withdraws his bid or increases his quoted prices during the period of bid validity or its extended period, if any ;or
 - In the case of a successful SP if the SP fails to sign the contract for any reason not attributable to SPCB, Odisha or to furnish Performance Bank Guarantee within specified time in accordance with the format given in the Bid.
 - Bids Submitted with EMD not Valid to the specified period will also be rejected

6.3. <u>Authentication of Bid</u>

All the copies submitted in the bid shall be typed or written in indelible ink. The original and all copies (hard copies) shall be signed by the SP's duly authorized person to bind the SP to the contract. A letter of authorization shall be supported by a written power of attorney accompanying the bid. All pages of the bid, except for un-amended printed literature, shall be signed and stamped by the person or persons signing the bid.

6.4 Late Bids

Any bid received by SPCB, Odisha after the bid submission deadline prescribed in the Bid Data Sheet shall be rejected and returned unopened to the SP after the award of work.

6.5 Withdrawal of the Bids

The SP may withdraw their bids after submission; provided SPCB, Odisha receives information one-day prior to the deadline date prescribed for bid submission receives a written consent. No bid can be withdrawn after expiry of time allowed for withdrawal of bid till bid validity period. Withdrawal of bid during this prohibited period will result in forfeiture of bid security (EMD).

6.4 <u>Disqualification of Bids</u>

SPCB, Odisha may at its sole discretion and at any time during the processing of tender, disqualify any SP from the tendering process if the SP has:

- i. Submitted the tender after the prescribed date and time of submission of bids.
- ii. Made misleading or false representations in the forms, statements and attachments submitted in proof of the eligibility requirements.
- iii. If found to have a record of poor performance such as abandoning works, not properly

- completing the contract, inordinately delaying completion, being involved in litigation or financial failures, etc.
- iv. Submitted bid document which is not accompanied by required documentation and Earnest Money Deposit (EMD) or non-responsiveness.
- v. Failed to provide clarifications related thereto, when sought.
- vi. If the technical offer contains any price information the offer will be summarily rejected.
- vii. Conditional bids will be summarily rejected.
- viii. Applicants who are found to canvass, influence or attempt to influence in any manner the qualification or selection process, including without limitation, by offering bribes or other illegal gratification, shall be disqualified from the process at any stage.
- ix. If found to submit more than one bid.

6.5 Clarification of Bids during Evaluation

During evaluation of the bids, SPCB, Odisha may, at its discretion, ask the SP for clarification of its bid content and seek information.

6.6 Preliminary Examination of the Bids

- Preliminary scrutiny will be made to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed and stamped, and whether the bids are generally in order.
- Arithmetical errors will be rectified on the following basis:
- If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the SP does not accept the correction of the errors, its bid will be rejected and its bid security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail.
- SPCB, Odisha may waive any minor informality; nonconformity or irregularity in a bid that does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any SP.
- Prior to the detailed evaluation, SPCB, Odisha will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the bidding documents without material deviations.
- If a bid is not substantially responsive, it will be rejected by SPCB, Odisha.

6.7 Award Criteria

SPCB, Odisha will award the contract to the SP whose bid has been determined to be substantially responsive and has been determined as the best value bid provided further that the SP has demonstrated that it is qualified to perform services required for the project satisfactorily. The notification of the award shall constitute signing of the agreement. The signing of agreement will amount to award of contract and SP will initiate the execution of the wok as specified in the agreement. At the same time as SPCB, Odisha notifies the successful SP that its bid has been accepted, SPCB, Odisha will send the SPs the proforma for contract, incorporating all agreements between the parties. Within 2 week's time, the successful SP shall sign and date the contract and return it to SPCB, Odisha.

6.8 SPCB, Odisha's Rights to Accept/Reject any or all Proposals

SPCB, Odisha reserves the right to accept or reject any proposal, and the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected SP or SPs or any obligation to inform the affected SP or SPs of the grounds for SPCB, Odisha's action.

6.9 Bid Prices

The SP shall express their bid price for the information Systems using the price schedule form provided in the bidding documents. All costs and charges related to the bid shall be expressed in Indian Rupees. The SP shall give the total composite price inclusive of all Levies & Taxes, packing, forwarding, freight and insurance etc. Prices of incidental services should also be quoted. Prices indicated in the Price Schedule shall be entered in the following manner:

- DISCOUNT, if any, offered by the SPs shall not be considered unless specifically indicated in the price schedule. SPs desiring to offer discount shall therefore modify their offers suitably while quoting and shall quote clearly net price taking all such factors like Discount into account.
- The price approved by SPCB, Odisha for procurement will be Total price including taxes.

6.10 Bid Security

The Bid Security shall, be in the form of a Demand Draft from a Scheduled Nationalized bank located in India and having at least one branch in Bhubaneswar in the form given in bid document. The bid security of the successful SP will be returned after signing the Agreement and furnishing the required Performance Bank Guarantee.

6.11 Assumptions and Exclusions:

The SP should state clearly the assumptions and exclusions based on which he/she is bidding for the contract.

7. General Terms and Conditions (GCC)

7.1. Contract and Interpretation

In this Contract, the following terms shall be interpreted as indicated below and the solution provider must bind all the definitions and prepare financial quotations.

- i. Applicable Law means the Contract shall be interpreted in accordance with the laws of the Republic of India.
- ii. Service Provider (SP)/Bidder means any firm offering the solution(s), service(s) and/ or materials required in the tender call. The word SP when used in the pre-award period shall be synonymous with SP and when used after award of the contract shall mean the successful SP with whom client signs the contract for rendering of goods and services.
- iii. Client / User means the State Pollution Control Board, Odisha.
- iv. Contract: means the agreement entered into between the Client and the SP, as recorded

- in the Contract Form signed by the parties including all attachments and appendices thereto and all documents incorporated by reference therein.
- v. Contract Price means the price payable to the SP under the Contract for the full and proper performance of all its contractual obligations.
- vi. SP's representative means the duly authorized representative of the SP, approved by the Clients and responsible for the SP's performance under the contract.
- vii. Firm means a company, authority, co-operative or any other organization incorporated under appropriate statute as is applicable in the country.
- viii. GCC means these General Conditions of Contract.
- ix. Goods when used singly shall mean the hardware, firmware component of the goods and services.
- x. Goods and services mean the solution(s), service(s), materials or a combination of them in the context of the tender call and specifications.
- xi. Incidental services means those services ancillary to the supply of the goods and services, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other such obligations of the SP covered under the contract.
- xii. Performance security means on receipt of notification of award from the User, the successful SP shall furnish the security in accordance with the conditions of contract, in the performance security form provided in the bidding documents.
- xiii. Technical bid means that part of the offer which provides information to facilitate assessment, by SPCB, Odisha professional, technical and financial standing of the SP, conformity to specifications etc.
- xiv. Products mean all of the equipment, Hardware, Software, supplies and consumable items that the SP is required to install or provide under the contract, plus the associated documentation.
- xv. Project sites means the place or places named in the schedule or requirements for delivery of goods and services.
- xvi. Specification means the functional and technical specifications or statement of work, as the case maybe.
- xvii. Tender call or invitation for bids means the detailed notification seeking a set of solution(s), service(s), materials or any combination of them.
- xviii. Warranty Period is the period specified in the GCC or SCC, following Acceptance of the deliverables, during which the SP's warranty obligations in respect of the delivered materials are in force. During the warranty period the SP has to keep all the deliverables in safe custody.

7.2. Confidentiality

The SP must maintain absolute confidentiality of the documents / maps / tools collected in any form including electronic media and any other data/information provided to him for the execution of the work. If at any stage it is found that the SP is using the data provided by the client any time during the contract execution or after completion of the contract for any other purposes, stringent legal action will be initiated as per applicable law of the land and the contract will be terminated without assigning any reasons.

7.2.1. Use of documents and Information

- The SP shall not, without prior written consent from SPCB, Odisha, disclose / share / use the bid document, contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the SPCB, Odisha in connection therewith, to any person other than a person employed by the SP in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- All project related document (including this bid document) issued by SPCB, Odisha, other than the contract itself, shall remain the property of the SPCB, Odisha and shall be returned (in all copies) to SPCB, Odisha on completion of the SP's performance under the contract.

7.3. Indemnification

- The SP shall, at its own expense, defend and indemnify the Client against all third-party claims of infringement of intellectual property rights, including patent, trademark, copyright, trade secret or industrial design rights arising from use of the products or any part thereof in the Client's country.
- The SP shall expeditiously extinguish any such claims and shall have full rights to defend itself there from. If the Client is required to pay compensation to a third party resulting from such infringement, the SP shall be fully responsible thereof and shall pay including all expenses and court and legal fees.
- The Client will give notice to the SP of any such claim and shall provide reasonable support to the SP in disposing of the claim.

7.4. Bid Security, Payments, Guarantees and Liabilities

- 7.4.1 SP shall furnish, as part of its bid, a bid security for the amount specified in tender call notice. Format of EMD is enclosed in Annexure–B.
- Performance Bank Guarantee/Performance Security
- The PBG shall be valid till the end of three months after the expiration of contract period and should be in the format prescribed in Annex. 'B'.
- In the event of the SP being unable to service the contract for whatever reason, department would revoke the PBG.
- Notwithstanding and without prejudice to any rights whatsoever of department under the
 contract in the matter, the proceeds of the PBG shall be payable to department as
 compensation for any loss resulting from the SP's failure to complete its obligations under
 the contract.
- Department shall also be entitled to make recoveries from the SP's bills, performance bank guarantee, or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence error, collusion, misconstruction or misstatement.

7.4.2. Payment

SPCB, Odisha will make payment for the entire services rendered as stated earlier in this document.

• For release of payments, the SP shall present pre-receipted due bills in duplicate for the payments along with all necessary supporting documents and satisfactory performance certificate from the concerned officer of SPCB, Odisha. .

7.4.3. Taxes and Duties

The SP shall be entirely responsible for all taxes, duties, license fees and other such levies.

7.4.4. Delay in the SP Performance

The SP has to start as per the direction of the client at the designated locations and Services shall be made in accordance with the time schedule prescribed by the Client.

If at any time during performance of the Contract, the SP should encounter conditions impeding timely delivery or installation of the Systems or performance of the Services, the SP shall promptly notify the Client in writing the cause of delay. As soon as practicable after receipt of the SP notice, the Client shall evaluate the situation and may at its discretion extend the time for performance, with or without liquidated damages, and revised implementation plan will be prepared by both parties.

7.4.5. Liquidated Damages

If the SP fails to deliver Services or install any or all of the Systems or if any of the services fail to gain Acceptance within the period specified in the Contract, the Client shall, without prejudice to its other remedies under the Contract, deduct from the performance security. Once the maximum is reached, the Client may consider termination of the Contract. If delivered or installed goods and/or Services cannot be put to use without the undelivered goods/Services, the damages will be calculated using the total price of the goods/services that can not be put to use.

7.5. Termination for Default

The Client, without prejudice to any other remedy for breach of Contract, may terminate this Contract in whole or in part by giving 30 days advance notice; if the SP fails to deliver any or all of goods / services or to install any or all of the Systems within the period(s) specified in the Contract or within any extension thereof granted by the Client or if he fails to perform any other significant obligations(s) under this contract. In the event the Client terminates the Contract in whole or in part, the Client may procure, upon such terms and in such manner as it seems appropriate, goods / services similar to those undelivered, and the SP shall be liable to the Client for any excess costs for those similar goods or Services. However, the SP shall continue performance of the contract to the extent not terminated.

7.6. Force Majeure

The SP shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if its delay in performance or to perform its obligations under the Contract is the result of an event of Force Majeure. For purposes of this Clause, "Force Majeure" means an event beyond the control of the and not involving SP's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Client in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes. If a Force Majeure situation arises, the SP shall promptly notify the Client in writing of such condition and the cause thereof. Unless

otherwise directed by the Client in writing, the SP shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

7.7. Resolution of Disputes

- 1. Disputes & its Jurisdiction: The contract between the bidder and the SPCB, Odisha shall be governed by the Laws of India and under this contract shall be taken by the parties only in Bhubaneshwar to competent jurisdiction.
- 2. Arbitration: Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, instructions and terms & Conditions herein before mentioned and so as to the quality of the materials, as to any question, claim, right, matter or thing whatsoever, in any way arising out of or relating to the contract. Specifications, estimates, instructions, orders or these conditions or otherwise concerning the works, or the execution of the same whether arising during the process of work or after the completion or abandonment thereof shall be referred to the sole arbitration of a person nominated by the Member Secretary, SPCB, Odisha, and if he is unable to act to the sole arbitration, some other person appointed by him willing to act as such arbitrator. The submission shall be deemed to be submission to arbitration under the meaning of the India arbitration & Conciliation, 1996 or any satisfactory modification or reenactment thereof for the time being in force conclusive and binding on all parties of the Contract. The venue of the arbitration will be Bhubaneswar only.

7.8. Notices

Any notice given by one party to the other pursuant to this contract shall be sent to the other party in writing or by email or facsimile and confirmed in writing to the other party's last known address. A notice shall be effective when delivered or tendered to other party whichever is earlier.

7.9. Inspections and Acceptance Test

Inspection: The Client or its representatives shall have the right to inspect the commissioning works or any other work that would carried as part of contract execution for its quality to confirm their Contract specifications at point of development/delivery and/or at the final place(s) of delivery. The SP shall arrange necessary Systems, people and equipment for such inspections. Should any inspected or tested or delivered services fail to conform to the Contract specifications or to pass the Acceptance tests as defined jointly in the Project Plan, the Client may reject the services, and the SP shall either replace the rejected delivered goods/ services or make alterations as necessary to meet the specifications free of cost to the Client.

7.10. Warranty & Maintenance

- The SP shall ensure that the portal platform to be customized during the project tenure.
- The warranty shall remain valid for 12 months after the successful Implementation and acceptance by the department. The support period shall begin post completion of warranty period.
- Service Provider will depute a Resident Engg. at SPCB, Odisha for minimum 6 months during the warranty period for the purpose of Systems administration & maintenance, trouble shooting, bug fixing and rectification, customization as per

CPB /SPCB requirements or any other problems related to the portal. The support will be required "on call basis"

- If the SP fails to remedy the defect(s) within a reasonable period, as per response and resolution time defined and in any case takes more than 3 working days for resolution, the dept. may proceed to take such remedial action as may be necessary, at the Service Provider risk and expense and without prejudice to any other rights which the dept. may have against the SP under the contract.
- The software to be Repeat Audited (Once In a Year) in the maintenance period at the beginning of the year

7.11. Service Provider's Obligations

- The SP will abide by the job safety, insurance, customs and immigration measures prevalent and laws in force India, and will indemnify the Client from all demands or responsibilities arising from accidents or loss of life. The SP will pay all indemnities arising from such incidents and will not hold the Client responsible or obliged.
- The SP must provide a team of qualified technical persons for constant interaction with OSPCB officials during the entire duration of contract including installation, customization, testing, validation, trials, live running and maintenance.
- The SP is responsible for, and obligated to work closely with SPCB, Odisha, Designated Project development team. The Intellectual Property Rights of the developed Systems lies with SPCB, Odisha. The SPCB, Odisha development team will associate throughout the process of development. However, the submission of the project deliverables is the responsibility of the SP.
- Maintenance Calls: The maintenance calls during warranty and AMC period should be attended as per terms and conditions in AMC agreement, for which a register shall be maintained by SPCB, Odisha and no extra cost shall be paid beyond the contract price.
- Warranty and Maintenance shall include daily data backup, customization as per CPCB/ SPCB requirements

8. Special Conditions of the Contract (SCC)

The following Special Conditions of Contract (SCC) shall supplement to the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions of the SCC shall prevail over those in the General Conditions of Contract.

Payments

• Contract Price & Payments:

Prices are fixed and no adjustment will be made to the contract price. The payment will be done by department on submission of invoices supported by uptime certification form the authorized officer of the client department for the uptime and performance. The payment will be made on Milestone basis until go-live and the AMC will be paid on half yearly basis.

• Release of Payment

The user department will make the payment as per payment terms and conditions on submission of invoices with necessary certifications.

Insurance to men, machine and material

The SP has to ensure against all risks on his men, machine and material and provide the evidence before commencing the work to the client.

Subcontract

Subcontract is not allowed in any form. During the program, if found that SP has given subcontract, the contract will be cancelled and implementation cum performance security will be forfeited besides black listing the SP to participate in any future tender of SPCB, Odisha.

• Infrastructure arrangement by SP

The SP shall make his/her own arrangements for infrastructure which includes power, water, and transportation etc of personnel deployed by him, security at the site in addition to the men, machine and material.

Time for Implementation of the project

The successful SP shall complete and implement the project as per the agreed time frame starting from the date of award of contract. The implementation schedule will be finalized in consultation with the SP and shall be strictly adhered to.

(Annex. 'A')

(Tender No. 12015 Dt. 4.10.2018 SPCB Odisha)

Bid Letter Form

(Registered name and address of the Service Provider)

To:

The Member Secretary State Pollution Control Board, Odisha ParibeshBhawan, A/118, Nilakantha Nagar, Unit - VIII, Bhubaneswar, Odisha 751012

Sir,

Having examined the bidding documents and amendments there on, we the undersigned, offer to provide services / execute the works in conformity with the terms and conditions of the bidding document and amendments there on, for the following project in response to your tender call notice;

"Selection of Service Provider for Supply, Commissioning & Maintenance of the Software for Central Server for Online Continuous Real-Time Data Acquisition Systems (RT-DAS) for Continuous Emission Monitoring Systems (CEMS) and Continuous Effluent Quality Monitoring Systems (CEQMS) and Continuous Ambient Air Quality Monitoring Stations (CAAQMS) for SPCB, Odisha"

If our bid is accepted, we undertake to Provide services / execute the work according to the time schedule specified in the bid document, obtain the performance guarantee of a bank in accordance with bid requirements for the due performance of the contract, and agree to abide by the bid conditions, including pre-bid meeting minutes, if any, which remain binding upon us during the entire bid validity period and bid may be accepted any time before the expiration of that period.

We understand that you are not bound to accept the lowest or any bid you may receive, nor to give any reason for the rejection of any bid and that you will not defray any expenses incurred by us in bidding.

Place:	Service Provider's Signature
Date:	Name, Designation and seal

(Annex. 'B')

Name, Designation and seal

(Tender No. 12015 Dt. 4.10.2018 SPCB Odisha) (EMD) Submission Form (In Envelop 'A')

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The Member Secretary State Pollution Control Board, Odisha ParibeshBhawan, A/118, Nilakantha Nagar, Unit - VIII, Bhubaneswar, Odisha 751012

Sir,

Date:

Place:		Service Provider's Signature
Demand Draft No	Dt	
D 1D CN	D.	

With reference to the above, we are herewith submitting EMD of Rs.30,000 /- bearing

Sample Performance Security Form

(To be issued by a Nationalized Bank scheduled in India and having at least one branch in Bhubaneshwar)

To, The Member Secretary State Pollution Control Board, Odisha ParibeshBhawan, A/118, Nilakantha Nagar, Unit - VIII, Bhubaneswar, Odisha 751012
WHEREAS
AND WHEREAS it has been stipulated by you in the said Contract that the Service Provider shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract. WHEREAS we have agreed to give the Service provider a Guarantee:
THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Service provider, up to a total of Rs
This guarantee is valid until the day of (Date)
Place: Service Provider's Signature Date: Name, Designation and seal

Technical Qualification (TQ) Proposal Submission Forms

Name of the Service Provider: Name of the

Project:

Form TQ#1 - General Information

Service provider must have registration under companies Act, 1956 & also registered with the GST and must have completed 3 years of existence as on Bid calling date.

Sl. No.	Description		Details
1.	Name of the Company / Firm	:	
2.	Date of Incorporation (Registration Number & Registering Authority) GST No., PAN No.	:	
3.	Legal Status of the Company in India & Nature of Business in India	:	
4.	Address of the Registered Office in India	:	
5.	Date of Commencement of Business		
6.	Name, e-mail Id, mobile number, fax of the Contact Person	:	Mobile No: Fax: Email
7.	Web-Site	:	
8.	EMD details	:	Amount: DD No. & Date Name of the Bank: Valid up to:
9.	Certification details as per TQ condition (valid documents to be submitted)	:	

T A	٠	4
IN	O	re:

Service provider should submit the copy of RoC &Copy of GST Certificate.

Place:	Service Provider's Signature
Date:	Name, Designation and seal

Form TQ#2 - Financial Turnover

Name of the Service Provider: Name of the

Project:

(All values in Rs.)

Financial Information of Service Provider					
Turnover of the firm in					
#	Financial Year	Total Turnover of the firm	IT based projects - Software Application Development and Maintenance, Real Time Data Analysis Tools	Total Profit after Tax	Net Worth of Company
	(1)	(2)	(3)	(4)	(5)
1	FY 2015- 2016				
2	FY 2016- 2017				
3	FY 2017- 2018				

Note:

- 1. Turnover other than mentioned above shall not be considered for evaluation.
- 2. Please attach audited Balance Sheets and IT return statements confirming to the figures mentioned in columns(2).
- 3. Service provider should submit any of the Audited balance sheet / Profit & Loss statement /certificates from the Company duly audited by the Charted Accountant and certified by the Company Secretary for all the above stated three financial years.

Place:	Service Provider's Signature
Date:	Name, Designation and seal

Form TQ#3 - Project Experience

Name of the	Service Provider
Name of the	Project:

Description of Item	Details
Name of the Client / Department	
Contact address & details of the department	
Value of the Project	
Date of Start of Work	
Date of Completion of Work	
Description of Work	
Service provider should submit the	
following:	
Copies of	
i. PO / Work order	
ii. Work completion certificates /	
Performance Certificate Work satisfactory	
certificate from the client department.	

Note:

- 1. Please submit supporting documents to support the claim and the certificates must be signed by Senior Executive /Deputy GM of the organization clearly indicating his/her name, designation and contact details such as Telephone Number, Fax number, email-id etc.
- 2. Please attach certificate from the client for the successful completion & implementation of project.

Place:	Service Provider's Signature
Date:	Name, Designation and seal

Form TQ#4 – Manpower

date	e. For this purpo	ose, the term 'IT	employed at leas professional' mea Computer / IT fro	ans a person	with a gradua	ate degree o
#	Employee Name	Designation	Skills & Professional Certification, if any	Area of expertise	Previous Exp.	Experier with Service provide
Thi bel		that, the above	e information is	true to the	best of my	knowledg
Pla	ce:			Service	Provider's S	ignature
	te:			Nama T	Designation a	nd seal

Form TQ#5 - Declaration Regarding Clean Track Record

Name of the Service Provider: Name of the Project:	
То:	
The Member Secretary State Pollution Control Board, Odisha ParibeshBhawan, A/118, Nilakantha Nagar, Unit - VIII, Bhubaneswar, Odisha 751012	
Sir,	
I have carefully gone through the Terms & Conding]. I hereby declare that my compon Bid calling date by any Central or State Govern Organizations in India for non-satisfactory past peunethical business practices. I further certify that make this declaration.	any has not been debarred / black listed as nment / Quasi Government Departments or erformance, corrupt, fraudulent or any other
	Yours faithfully,
Place:	Service Provider's Signature
Date:	Name, Designation and seal

Form TQ#6 - Local Presence

Name of the Service provider:	
Name of the Project:	
The service provider should have a local office a	as on date of bidding.
If the service provider is not having Local presendays from issue of LoI and same must be correspondence.	<u> -</u>
Note: An undertaking in this regard should be su Service provider should submit self-certifie	1 0
Place:	Service Provider's Signature
Date:	Name, Designation and seal

Form TQ#7. Understanding of the Project & Implementation Methodology

Name of the Service Provider:

Name of the Project:

A Brief technical proposal by the bidder on Project Scope, understanding of the project, technologies proposed covering the following and other issues related to project:

- i. Technology model.
- ii. Details of license and software to be provided for central server/ client server and web server
- iii. Project Plan
- iv. Development model
- v. Project execution plan
- vi. Training Plan
- vii. Manpower deployment plan.
- viii. Implementation Methodology Plan, including migration of existing data to new platform.
- ix. Security Methodology and Plan.
- x. Issues and Risks in the implementation of the Project.
- xi. Others, if any as per scope. .

Note: Service provider should enclose the relevant supporting documents with page numbers.

All Pages Must be duly signed and stamped.

Form TQ# 8 Hardware Required & Specifications

Name of the Service Provider: Name of the Project:	
i. Hardware, Systems software, networthe proposed solutionii. Technical Specifications for all hard	k bandwidth and other tools required to implement lware items
Place:	Service Provider's Signature
Date:	Name, Designation and seal

Commercial Proposal Submission Forms

Form C#1 - Commercial Proposal Submission Form

The Member Secretary

State Pollution Control Board, Odisha ParibeshBhawan, A/118, Nilakantha Nagar, Unit - VIII, Bhubaneswar, Odisha 751012

Dear Sirs:

We, the undersigned, offer to provide the commercial proposal for [Insert title of Assignment] in accordance with your Tender No___ and [Insert Date], and the Technical Proposal.

Our attached Financial Proposal is for the sum of [Insert amount(s) in words and figures]. This amount is excluding the Domestic taxes such as GST and others as applicable (Indicate the amounts against each).

We hereby confirm that the financial proposal is unconditional and we acknowledge that any condition attached to financial proposal shall result in rejection of our financial proposal.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal.

We understand you are not bound to accept any Proposal you receive.

Yours sincerely,

Place:	Service Provider's Signature
Date:	Name, Designation and seal

Form – C#2 Commercial Proposal

Name	of the	Service	Provider:
Name	of the	Project	•

Sl. No.	Content Items	Cost (in Rs.) Excluding Taxes	Taxes (in Rs)	Total Cost including all taxes
1.	Cost of Supply, Commissioning & Maintenance of the Application Software for Central Server for Online Continuous Real-Time Data Acquisition Systems (RT- DAS) for Continuous Emission Monitoring Systems (CEMS), Continuous Effluent Quality Monitoring Systems (CEQMS) and Continuous Ambient Air Quality Monitoring Stations (CAAQMS) for SPCB, Odisha			
2.	Cost of the Licensed Software for front and back end platform			
2.	Operation and Maintenance Cost for three years beyond the warranty period of 12 months Total Cost			

Total Price in words excluding taxes	

Note: The above price quote should include '3' year annual maintenance cost post Go-Live declaration and also includes customization as per the User Department requirement, training, defect fixing and any up gradations.

The Licensed Software for front and back end platform shall be in the name of SPC Board, Odisha.

Place:	Service Provider's Signature
Date:	Name, Designation and seal