Boards of Apprenticeship Training / Board of Practical Training

(Located at Chennai, Kanpur, Mumbai and Kolkata)

(An autonomous organizations of Department of Higher Education, Ministry of Human Resource Development, Government of India)

Request for Proposal
For
Hosting National Web Portal

www.mhrdnats.gov.in

Coordinating Authority: Board of Apprenticeship Training

(Southern Region), Chennai

Ref: BOAT/NATS - NWP/CH/Tender/2016

Last date for submitting the proposals as per the Terms & Conditions on or before **30th November 2016, 5.00PM**

1 Introduction

The importance of industrialization was emphasized by the Government of India in order to provide job opportunities for the vast majority of the people and to achieve economic growth. The various skills needed for the industries were identified. In order to meet the requirements of the industries, the Government of India decided to utilize the facilities available in the industries for training technicians thus the **Apprenticeship Training** was envisaged. The **Apprentices Act, 1961** was enacted in the Parliament during December 1961, to provide practical training to pass-outs of Industrial Training Institutes to enhance their technical competency. Central Apprenticeship Council was created to advise the Government to formulate policies and procedures.

The Apprentices Act 1961 was amended to bring the training of **graduates & diploma holders in engineering / technology as graduate & technician apprentices** under its purview in 1973. Its amendment in 1986 provides training of **+2 vocational pass-outs as technician (vocational) apprentices** under the Apprentices Act. The scheme is being implemented through three Regional Boards of Apprenticeship Training (BOAT) located at **Chennai, Mumbai, Kanpur** and a Board of Practical Training (BOPT) at **Kolkata** in our Country.

The purposes of the Scheme is to fulfil / match, any gap, in so far as the practical / hands on experience of fresh graduate & diploma holders in engineering / technology and +2 (Vocational) pass-outs which they do not acquire during their regular studies under normal practice. The main aim of the Act is to provide basic input of confidence in the mind of qualified youth and tune them to the practicalities of the work life to enhance their employability. The jurisdiction of the Boards covers all the States and Union Territories of India.

1.1 Background

Boards of Apprenticeship Training / Board of Practical Training have been asked to computerize all their activities so as to meet the challenges faced by them in the New Economic scenario. Computerization is not only expected to transform all their operations but also provide greater accuracy of information at user and managerial levels, enabling users to track information more effectively and enabling management to monitor key

financial and operational matrices. A National Web Portal is to be developed to meet the business needs of Boards of Apprenticeship Training / Board of Practical Training. This is part of the E-Governance initiative envisaged by the Government of India. The National Web Portal will use internet technology to deliver information and services to all the stakeholders – Institutions, Industries, Students and Employees of all the four Regional Boards. In addition to improving delivery of BOATs / BOPT services, the portal can make operations more efficient and also empower the stakeholders by giving them easier access to information and the ability to network electronically with other stakeholders. The Internet and related technologies make it possible to conduct business across firm boundaries almost as efficiently and effectively as is to conduct business within the firm.

BOAT (SR), Chennai has been entrusted with the job of developing the National Web Portal for automating all the processes and procedures of the Apprenticeship Training Scheme. The National Portal for Apprenticeship Training would replace the existing individual portals of the Regional Boards. The National Web Portal would be a secure, scalable, sustainable application with uniform forms, reports, procedures for all the four Regional Boards. The National Web Portal is developed based on the following four broad perspectives

1) Integration of all four Boards of Apprenticeship Training / Practical Training existing portals

2) The National Single Portal is to be user friendly as far as candidates, industries and institutions are concerned

3) Auto Mapping of Demand & Supply – Notification of Training positions in industries and Supply from institutions

4) Future requirements for Apprenticeship Training Scheme in terms of growth, expansion etc.

The broad activities of all the four Regional Boards are as follows:

- Student Enrolment
- Industry Registration
- Establishment Registration
- Manage Contracts

- Maintain Record of Progress of Trainees
- Student Feedback
- Reimbursement of 50% Stipend
- Organise Centralised Apprenticeship fairs
- Grievance Handling
- Issue of Certificate of Proficiency with Digital Signature
- Management Reporting
- Data Migration
- DAK Register
- Bulk Upload of Students, Contracts, ROP and TCR

The Application Development and Maintenance for the National Web Portal is being done by M/s Cognizant Technology Solutions.

National Web Portal is currently being hosted on the cloud in M/s Cyfuture India Pvt. Ltd, Noida on contract basis which is going to end by 23rd December 2016. Cloud computing is the delivery of computing as a service rather than a product, whereby shared resources, software, and information are provided to computers and other devices as a utility over a network. Cloud computing provides computation, software applications, data access, data management and storage resources without requiring cloud users to know the location and other details of the computing infrastructure.

End users access cloud based applications through a web browser or a light weight desktop or mobile app while the business software and data are stored on servers at a remote location. Cloud application providers strive to give the same or better service and performance than if the software programs were installed locally on end-user computers.

At the foundation of cloud computing is the broader concept of infrastructure convergence and shared services. This type of data centre environment allows enterprises to get their applications up and running faster, with easier manageability and less maintenance, and enables IT to more rapidly adjust IT resources (such as servers, storage, and networking) to meet fluctuating and unpredictable business demand.

2.0 Project Scope:

The hosting service provider should provide the end to end solution including installation, maintenance, monitoring and Reporting of National Web Portal application as per this tender document for the Boards of Apprenticeship Training located at Chennai, Mumbai and Kanpur & Board of practical training located at Kolkata and Department of Higher Education, Ministry of Human Resource Development, New Delhi. The BOAT (SR), Chennai is the coordination board on behalf of the Regional Boards located above cities. The scope of project should have continuous liaison with M/s Cognizant Technology Solutions, Chennai for interaction in line with the scope discussed as per this document. Following sections highlight the proposed scope of hosting.

2.1 Functional Requirements:

The following activities shall be considered in scope by the hosting provider, for this tender document

2.1.1 Hosting:

It is the responsibility of the hosting provider to ensure that the web portal hosting is taken care of and that any problems are quickly resolved. Also the hardware equipment is owned and maintained by the hosting service provider. The Service provider should support M/S Cognizant Technology Solutions for Installation of application and migration of data from the existing service provider. BOATs / BOPT requires the service provider to not only provide the hosting, in addition to the above, the service provider should take care of all the services in the compatible with developer requirement, all the system administration services that go along with it.

- Hosting provider shall be in a minimum Tier 3 DC within india
- Operating System Management
- Database Management / Replication
- Web Server Management
- Backup Management
- Security Management
- DNS Management
- Vulnerability Assessment /Penetration Testing of all Servers

- Proactive Maintenance Services
- Data Migration of Southern, Western, Northern and Eastern Region
- Installation of SSL certificate and Digital Signature Certificate

2.1.2 Domain Name Registration:

A domain name is a unique name for a web portal, like google.co.in. Domain name for the national web portal has already been registered with **NIC** as **www.mhrdnats.gov.in** The Hosting service provider should take care of all the activities of mapping and should provide the IP address details requested by us.

2.1.3 24 Hour Support:

The Web Hosting Service Provider should offer 24x7x365 days uninterrupted service as per the tender technical specification and terms & conditions. The service provider should sign Service Level Agreements with BOAT (SR), Chennai on behalf of BOATs / BOPT. The Hosting provider should maintain Toll-free phone numbers with a ticketing system for getting technical support and escalation process. The Web Hosting Service Provider should provide a relationship manager to handle the services of National Web Portal and should be capable of resolving any service deficiency / issue which we can escalate and get resolved to our satisfaction. Any performance issues on the part of hosting provider will be discussed within four hours of their occurrence by management. This can be in the form of a face to face meeting or an electronic conference system.

- 24x7 Help Desk (Web based ticketing tool, Smart messaging, Phone and Email)
- 24x7 L2 and L3 Management Operations and Maintenance for 1 year

The SLA's have been logically segregated in the following categories

1. Implementation Service related Levels
2. Helpdesk Service related Levels
3. Compliance and Reporting Service Levels
4. IT infrastructure related Service Levels
5. Cloud Services related service Levels

Escalation Matrix:

Severity 1 issues: should be resolved within 4 hours from the time of ticket raised

Severity 2 issues: Should be resolved within 8 hours from the time of ticket raised

Severity 3 issues: Should be resolved within 24 hours from the time of Ticket raised.

The Severity 1, 2 &3 will be considered as High, Medium and Low. The Complete Escalation matrix up to the level of CEO shall be mentioned in the proposal with name, designation, phone number and Email.

2.1.4 Daily Backup:

Daily Backup is the process whereby copies of computer files are taken in order to allow recreation of the original, when such need arise. A backup is a spare copy of a file, file system, or other resource for use in the event of failure or loss of the original. The term is most commonly used to refer to a copy of all the files on a computer's disks which is made periodically and kept on magnetic hard drives or other removable medium. Whilst backup is a routine and is well understood, the ability to restore data is usually only performed when data is lost, corrupted, or otherwise changed. It is extremely important to review and test the restore procedures, to ensure that, in an emergency, appropriate action shall be taken. The Web Hosting Service Provider should ensure that back up is taken on a daily basis; they should have automated scripts for this task. The data backup taken should be easily retrievable as and when needed.

2.1.5 Traffic Volume:

The volume of inbound and outbound data generated by National Web Portal should be measured. The generated volume measured should be aggregated over a defined period, e.g. the previous 30 days. Inbound and outbound data volumes which have been measured independently will then be reported to BOATs/BOPT. There should not be any traffic volume restrictions imposed by the Web Hosting Service Provider. Since peak traffic volumes are seasonal BOATs / BOPT does not want any restrictions to be placed on them.

2.1.6 Bandwidth Restrictions:

Bandwidth is the amount of traffic that is allowed to occur between service provider infrastructure and the rest of the internet. The amount of bandwidth a hosting provider can provide is determined by their network connections, both internal to their data centre and external to the public internet. Adequate bandwidth should be provided by the Web Service Hosting Provider. As BOATs / BOPT plans to publish pictures and to broadcast video and sound, want the Web Hosting Service Provider to have

adequate supporting infrastructure to do so. The service provider should increase the bandwidth as the condition may arise.

2.1.7 E-Mail Functions:

The Web Hosting Service Provider should provide all necessary support with regard to the installation and maintenance of active email services as requested by the application developer. i.e Simple Mail Transfer Protocol.

2.1.8 Database Access:

The database will comprise of all data pertaining to the BOATs / BOPT. All the data like Master, Transaction and Audit data will be stored in the database. In case of any application errors it will be useful to look at the last transaction which has taken place and the various data base logs. The Web Hosting Service Provider should provide database access to the Web Portal that is to be hosted. It should be made possible to carry out with backend operations without any restrictions being placed.

2.1.9 Disk Space:

BOATs / BOPT currently have 25000 notified industries in India approximately and have identified around 2 lakh training slots in all categories. The Board liaisons with 20000 technical institutions that comprises of Engineering colleges, Polytechnic colleges and Higher Secondary Vocational Schools. It has also been proposed to maintain apprentice's record for at least five years even after completion of Apprenticeship Training therefore; necessary provision is to be provided. However the expected annual growth of the Boards would be around 50%. Therefor the service provider should have the capacity to handle.

Obviously, the Web portal should be in a position to handle an average of 5 lakh records annually. Maintain such records for the last 5 years should be made available online it should be possible to retrieve the same at any given point of time. Backup needs to be taken on a weekly basis and archiving of data older than 5 years using hard drives must be done on a monthly basis. A user should be able to access the required data via the screen within 3 seconds if it is from the system and within 5 seconds if the data is from the Web Portal. The hosting service provider should take this into consideration and provide suitable service with regard to performance and memory space aspects. BOATs/BOPT expects to carry out all its operations using the Web Portal. At any given point of time, five years of

data should be available online and the others should be archived so that they can be retrieved as and when needed. All the information regarding the stakeholders of BOATs / BOPT – Students, Institutions, Establishments and Employees should be available online. BOATs / BOPT would like a minimum disk space of 1TB to be provided by the Web Hosting Service Provider initially. The Service Provider should be able to provide additional disk space as and when the need arises.

2.1.10 Control Panels:

A control panel in web hosting refers to the interface provided by the hosting company for the maintenance and monitoring of the hosted website. Some of the commonly available modules in most control panels are Access to server logs, Details of available and used web space and bandwidth, Email account configuration, Maintaining File Transfer Protocol users' accounts, Managing database, Visitor statistics using web log analysis software and Web based file manager. The Web Hosting Service Provider is expected to provide all of the above to BOATs / BOPT. It should be possible to to carry out all the operations including any updates to the application, analysis of logs through the control panels. BOATs / BOPT and CTS should be provided with access to the hosted application through the control panel.

2.1.11 Uptime Guarantee:

Uptime Guarantee refers to the amount of time within a specific period that a hosting provider's system is active or available for servicing site visitors. All hosts must have some downtime for routine maintenance or unexpected outages. Uptime Guarantee of at least 99.5% should be provided by the Web Hosting Service provider for the application availability and 99.99% for the systems availability. Prior notification should be given for scheduled maintenance. Any issues with availability of Web Portal should be dealt within the SLA period.

2.1.12 Proactive Technical Support:

Computers need regular maintenance to optimize their performance. Over time, the performance of a computer will degrade through everyday use if not maintained properly. The Web Hosting Service Provider should enhance operational effectiveness with proactive problem identification and solutions

recommendations. They should have technical experts who help coordinate support, provide hands-on assistance, and share knowledge and know-how with our staff and efficiently manage infrastructure resources to meet our performance objectives. The Web Hosting Service Provider should not only provide support when demanded, but also monitor, pre-empt and fix threats before they can cause any damage to the hosted application. This will be possible only by combining technology, processes and expertise that are capable of identifying and immediately responding to any potentially threatening situation. Routine upgrades, technical support and administration support should be provided by the Web Hosting Service Provider.

2.1.13 Security:

When a computer system connects to a network and begins communicating with others, it is taking a risk. Internet security involves the protection of a computer's internet account and files from intrusion of an unknown user. Common security measures involve protection by well selected passwords, change of file permissions and back up of computer's data. Hosting Provider should share the information regarding the prevention against the vulnerabilities,

Various levels of security should be provided by the Web Hosting Service Provider.

- **Physical Level** – Authorization, Authentication, CCTV, Biometric access etc
- **Logical Level** – Firewalls, Intrusion Detection, Anti-virus, etc.
- **Data Level** – Encryption, Recovery etc.

It would be desirable for the Data Centre to hold security certification by a reputed agency. In the National Web Portal Comprehensive security solution should be incorporated to avoid hacking and threats.

2.1.14 Disaster Recovery & BCP:

- Cloud Setup of a Secondary Site at a seismically different zone compared to primary site with required Bandwidth, Network, Security, Compute, Storage and Backup for all four regions
- Installation and Configuration of DB Replication

- BCP Plans to be shared with BOAT's / BOPT
- Ongoing Disaster Recovery and Management
- Quarterly DR Drills
- Comply to Recovery Time Objective of less than 24 hours and Recovery Point Objective of less than 4 hours requirements
- The Solution shall be capable of replicating full server (OS, application and data)
- The service provider shall provide seamless network at the DR site.

2.1.15 Self Service Portal Requirement:

The Self Service Portal should contain the following options: -

- Firewall Management / IP management
- Cloud Server management
- Upgrade / Downgrade Capacity (CPU/RAM/Disk)
- Start / Stop Servers
- Auto scaling (Trigger Based / Schedule Based)
- Online Real-time Performance Utilization Reports
- CPU Reports/ RAM Reports
- Network Bandwidth Reports
- Backup Reports
- Online Billing and Usage Reports
- Google Analytics Reports

2.1.16 BOATs / BOPT require the following data centre services:

1. Cloud Application Server – 7 Nos
2. Database Server – 4 Nos
3. Firewall
4. Server Load Balancers
5. Global server Load Balancers (if required)
6. Internet Bandwidth Minimum 18 Mbps (Scalable)
7. Public IPs
8. Linux Management
9. Online record Management

10. Web Server Management
11. My SQL Management
12. SAN Storage - 2 TB
13. Backup Capability Minimum – 1 TB
14. Security Management
15. Hack Proof Security along with Disaster Recovery & Business Continuity Plan for the Hosting of National Web Portal.
16. SMTP services
17. SSL certificate
18. Digital Signature Certificates

BOAT requires Level III Hosting space, an environment for ultra-reliable operations with multiple layers of power supply, Main feeders from dual sources, dual DG sets, dual UPS, and dual electricity distribution system – all in highly redundant configurations, Multiple types of fire detectors, Early fire warning systems, FM200 gas based fire suppression systems, raised floors, controlled HVAC as per international IDC norms, separate cooling zones, humidity control and multiple levels of physical security including 24*7 CCTV surveillance and biometric access controls.

(i) Hosting Provider should provide Impact analysis for each and every upgrade.

(ii) Service Provider should provide the Downtime SLA and patch Upgrade SLA in detail

(iii) Service Provider should ensure that the infrastructure will support the installation of SSL certificate and Digital Signature Certificate.

(iv) In case of Intrusion – intensive monitoring, detection, resolution and report should be given within 24 hours.

Service Features:

Monitoring

- Server availability status
- Device Status Monitoring
- Network Interface Status (Up / Down) Performance Monitoring
- Network Interface Utilization (Input / Output traffic)
- CPU utilization

- Physical Memory utilization (Free & total memory)
- Disk Space (Free and total disk space) Incident Monitoring
- 24X7 fault monitoring and automated alerts
- Threshold Alerts

Management:

1. User management : New user creation, edition and deletion of users, set password policies, password resets
2. Patch management : Install recommended service packs, security patches and hot-fixes
3. Disk management : Fix disk space problems by backing up (if required) and deleting files
4. Log management : Monitor system logs to report and provide fixes to errors
5. Backup management : Monitor and fix backup errors and re-run failed backups as per customer backup policy
6. Scheduled job management : Monitor scheduled, automated scripts and process included Incoming and outgoing feeds to various databases
7. FTP services and other specific process on the Unix servers Rsync process which synchronizes files across different servers
8. Performance management : Monitor / analyze and fix problems due to excess swap memory, physical memory and CPU utilization
9. Problem management: Monitor, record, classify and resolve operative system problems Incident validation, classification & remediation. Start/stop services/process and restart servers to provide workarounds
10. Change management: Identify, record, classify and implement changes on the OS on a need basis All changes will be executed after an approval from Director.
11. The bidder shall maintain conducive working atmosphere at the datacentre
12. Reporting:

    Event
    Management
    reports
    Performance
    reports

Web Analytical reports

2.1.17 Communication & Status Reporting:

The Service Provider should deploy a well-established mechanism for the hosting communication and status reporting. It should use standard templates for documenting all hosting status activities. These status reports should be published in a timely manner to various stakeholders. The service provider should share the weekly Status Report and Executive Status Report every month.

Web analytics report should be provided on periodical basis

2.1.18 Governance Model

Hosting Provider should provide the single point of contact for handling all communication and also an escalation process for each engagement to handle any issues / problems that might be raised and escalated by BOATs / BOPT. Issues can be received from BOATs / BOPT's Problem Ticketing System through mails or over discussion in teleconferences. Depending upon the severity of the issue / problem raised during the course of the project, time limits will be defined for escalation to higher level of management.

3.0 Mandatory Technical Standards:

The service provider shall have the following standards and submit the proof along with the proposal failing which their proposal will be rejected

1. The proposed sites shall be in different seismic Zones
2. The Cloud Infrastructure should not be based on any open source platform.
3. The Cloud Infrastructure should be built with N+1 Redundancy for all elements.
4. The Cloud Infrastructure should have 100% uptime for the storage Infrastructure.
5. Service provider should have SSAE-16 Certifications
6. Service provider should have proven track record for handling major customers including government with manpower of minimum 100 to support the current operations. They should provide the list of customers along with the proposal.
7. Service provider should have Certified Virtualization, Linux, Database Administrators and ITIL certified Engineers.
8. Service provider's Firewall should have 10 Gbps throughput

9. Cloud Platform shall have built in robust self-service facility to monitor the infrastructure and scaling up the services as per the specifications
10. Backup of cloud Infrastructure should happen through separate LAN
11. Service provider should Host the entire Cloud infrastructure in a secure self- owned data centre - Tier 3 Compliant facility
12. Service provider shall have ISP "A "grade License to provide end to end bandwidth and connectivity solutions
13. Service provider should ensure that configuration of services on world class systems and equipment like Dell, HP, IBM, Hitachi, Juniper and Cisco Systems etc.
14. Service provider should provide complete Integrated Architectures – Compute, Storage, Network, Security, Analytics, and Data Backup etc.
15. Service provider should have ISO 27001 & ISO 9000 industry level certification.
16. Bidder shall provide Multi-homed network and Centralised Network Management System (NMS)
17. Minimum 5 years' of experience in the Data centre business

4.0 Key Assumptions:

The following assumptions and constraints pertain to the hosting strategy:

1. BOATs / BOPT's Web Portal will be hosted by the Web Hosting Service Provider at their own location as specified by this Tender.
2. The necessary hosting tools and access to these tools should be provided by the Web Hosting Service Provider to BOATs / BOPT.
3. There will be a separate test environment, accessible to the test team for conducting testing. This test environment will be accessible to Testing Service Provider who will be performing the testing on the Web Portal on behalf of BOATs / BOPT and the test environment will be similar to the production environment in both hardware and software configurations.
4. BOATs / BOPT should be able to move any new enhancements, production fixes and rollouts into the hosting environment as and when required and full access with facilities to do so should be provided by the Web Hosting Service Provider.
5. A Service Level Agreement (SLA) will be in place with Web Hosting Service Provider.

The SLA will identify data centre responsibilities. Maintenance activities performed by the data centre (e.g., security patches and server maintenance) will follow the procedures and service levels established by the hosting data centre and accepted by BOATs / BOPT.

6. An Issue identification and escalation process should be properly followed by the Web Hosting Service Provider as and when any issues crop up.
7. The service provide shall provide remote VPN services to mobile users to connect DR

5.0 Acceptance Criteria:

The delivery, Installation & commissioning will be completed within 30(thirty) days from the date of issue of work order. Any delay by the tenderer in the delivery of goods and services shall render the tenderer liable to any or all of the sanctions VIZ. Invocation of bank guarantee / forfeiture of security deposit, imposition of liquidated damage, blacklisting etc.

If the tenderer fails to deliver any or all of the goods and services or complete the installation / commissioning within period specified in the purchase / work order, the BOAT shall without prejudice to its other remedies deduct as liquidated damage as per the liquidated damage clause mentioned in this tender

The BOATS / BOPT Web Portal Hosting Manager or assigned designee will sign-off on the completeness and accurateness of each deliverable after complete verification of the implementation.

S.No	Deliverables	Acceptance Criteria
1.	Primary Site – As Mentioned in separate Technical Specification documents	BOAT (SR) Signoff
2	Disaster Recovery Site & Testing Sever – As Mentioned in separate Technical Specification Documents	BOAT (SR) Signoff
3	Escalation Matrix	Should be provided
4	Contact Details of Business Service professional & Delivery Manager details	Should be Provided
5	All Reporting Formats and Analytical Reports	Template to be Provided

6.0 Terms & Conditions:

i) The bidder should submit 2 separate proposal that is Technical along with EMD and commercial. The commercial proposal of the bidder shall be considered only if they qualified in the technical bid as per the tender document.

ii) Any additional requirement during the period as per the requirement of the BOATs / BOPT, the same should be done within the existing framework at no additional cost by the vendor

iii) Minimum 5 years' of experience in the field is required.

iv) EMD (Earnest Money Deposit) of Rs 1,00,000 INR should be made in demand draft in favour of "THE DIRECTOR, BOARD OF APPRENTICESHIP TRAINING (SOUTHERN REGION)", payable at CHENNAI.

v) The vendor should execute an agreement as per the format provided by BOAT (SR).

vi) All the documents used for hosting strategy shall be under the sole propriety of BOATs/BOPT and the vendor cannot replicate or duplicate the contents elsewhere.

vii) The Contract must be executed as per terms and conditions of the purchase order.

viii) Any deviation of terms & conditions of the contract will be considered as breach of contract and contract shall be considered as discharged.

ix) No Travel Expenses on any context shall be reimbursed by the BOATs/BOPT to the members of Hosting provider.

x) a) Fall Clause: In case of reduction in taxes/levies by the Government during the period, the benefit of the same shall be passed on the BOATs / BOPT.

(b) Risk Purchase Clause: If the tenderer fails to complete the work as per the requirements and within the time limit, BOATs / BOPT shall have the right to get it completed from the open market even at a higher cost which shall be recovered from the tenderer.

xi) The mode of payment shall be against the invoice, no advance payment can be made at any cost.

xii) All disputes arising out of contractual obligations shall be handled within the Jurisdiction of Chennai.

xiii) The Director, BOAT (SR) on behalf of BOATs / BOPT reserves the right of discharging any or all the tenders without assigning any reason.

xiv) Only licensed software should be used for hosting strategy. No additional cost will be paid.

xv) Complete Escalation Matrix should be shared with name & designation.

xvi) PAN and TIN Number of the organization need to be provided.

xvii) EMD will be refunded for the unsuccessful bidders within 30 days of the tender opening.

7.0 Penalty Clause:

In case of failure to provide the acceptable performance by service provider under the terms & conditions will be resulted in the following penalties:

ISSUE	REMEDY
Failure to resolve performance issue within 24 hours	BOATs/ BOPT will reduce to service provider by 2% for the month in which issue occurred
Failure to resolve performance issue within 72 hours	BOATs/ BOPT will reduce to service provider by 5% for the month in which issue occurred
Failure to resolve performance issue within 1 (One) week hours	BOATs/ BOPT will reduce to service provider by 10% for the month in which issue occurred

Additional information regarding functioning of BOATS / BOPT, present system of computerization, hardware available, etc., any other clarification on the tender shall be obtained through email / phone during 10.00 A.M to 5.00 P.M. on Monday to Friday, excluding public holidays. Contact Person: Program Coordinator for IT, Phone no: 044 – 22542236 / 1292 Ext: 249, Email – pcoit@boat-srp.com

Please note the cost of tender document is Rs.2000 shall be paid through separate Bank Demand Draft in favour of Director, Board of Apprenticeship Training (Southern Region), Chennai along with Technical Bid or NEFT account details – Ac. No: 0942201001280, IFSC Code: CNRB0000942, Bank: Canara Bank, Branch: K.B.Nagar. If the payment is made through NEFT, proof of payment need to be attached with the technical bid.

Tender shall be submitted to the below address with envelop on or before **30th November 2016, 5.00 PM**

The Director,
Board of Apprenticeship Training (Southern Region),
Department of Higher Education, Ministry of Human Resource Department
4th cross road, CIT Campus,
Taramani,
Chennai – 600 113
Email : boat sr@vsnl.net

BOARD OF APPRENTICESHIP TRAINING / BOARD OF PRACTICAL TRAINING
SOUTHERN REGION, CHENNAI – 113
TECHNICAL SPECIFICATIONS FOR HOSTING

Components	Primary Site	Cost
Location	Anywhere in India	
Virtual Private Data Center	1	
Cloud Application Server (8 vCPU , 32 GB RAM, 300 GB HDD)	4	
Dedicated DB Servers (Intel Xeon 16C, 68 GB RAM, 1600GB HDD)	2	
Cent OS	6	
My SQL	1	
Firewall	1	
Server Load Balancers	1	
Global Server Load Balancers (if required)	1	
Internet Bandwidth	Dedicated 18 Mbps	
Replication Bandwidth	10 Mbps	
Public IP	10	
Storage SAN	2 TB	
Backup	1 TB	
Linux Management	6	
MySQL Management	2	
Web Server Management	4	
Online Storage Management	6	
Antivirus Management	6	
Additional RAM Availability	Yes/No	
Cost of Additional RAM		
Additional Hard Disk Availability	Yes/No	
Cost of Additional HDD		
Facility to increase Application and Database Servers with terms & Conditions.	Yes/No	
Data Transfer (GB/Month) (How much Availability?) Cost of Additional Data Transfer	Availability within the Limit	

Intrusion Prevention System	Yes/No	
DNS Entry	Yes/No	
Additional Backup Availability	Yes/No	
Dual Power Source	Yes/No	
OS Hardening	Yes/No	
Bandwidth Overage Availability	Availability with cost details	
24x7 Support(web/email/phone)	Yes/No	
Preventive Maintenance (Daily/Weekly/Monthly)	Yes/No	
User Management	Yes/No	
Patch Management	Yes/No	
Disk Management	Yes/No	
Log Management	Yes/No	
Backup Management	Yes/No	
Scheduled Job Management	Yes/No	
Performance Management	Yes/No	
Problem Management	Yes/No	
Change Management	Yes/No	
Reporting	Yes/No	
Database Support	Yes/No	
Complete administrative control of the server given to BOAT (SR)	Yes/No	
BOAT(SR) has direct root access to the hosted server	Yes/No	
End-to-End service level guarantee of 99.5%	Yes/No	
Set up and scalability of RAM and CPU within hrs of request	Yes/No	
Limited downtime for adding additional RAM and CPU	Possibility with time limit	
Additional OS instance can be deployed within 15 - 30 minutes of receipt of request	Yes (How much time?) /No	
On-demand scalability of storage	Yes/No	
Access to Data centre should be provided to BOATs / BOPT	Yes/No	
Access to Third Party Team for audit	Yes/No	
SMTP services	Yes/No	
SSL & Digital Signature Certificate	Yes/No	

DR Site Requirements:

Components	Quantity	Cost
Location	Anywhere in India Other than the primary centre	
Application Server (8 vCPU , 32 GB RAM, 300 GB HDD)	2	
DB Servers (Intel Xeon 16C, 68 GB RAM, 1600GB HDD)	1	
Firewall	1	
Internet Bandwidth	Minimum 10 Mbps	
Cent OS	3	
My SQL	1	
Linux Management	3	
MySQL Management	1	
Web Server Management	2	
Online record Management	3	

Testing Server Requirements:

Components	Quantity	Cost
Location	Anywhere in India	
Application Server (8 vCPU , 16 GB RAM, 50 HDD)	1	
DB Servers (Intel Xeon 16C, 16GB RAM, 100GB HDD)	1	
Firewall	1	
Internet Bandwidth	Minimum 10 Mbps	
Cent OS	2	
My SQL	1	
Linux Management	2	
MySQL Management	1	
Web Server Management	2	
Online record Management	2	

List of Abbreviations:

BOAT – Board of Apprenticeship Training

BOPT – Board of practical Training

ROP – Record of progress

TCR – Training Completion Report

SR – Southern Region

IT – Information Technology

NIC – National Informatics Centre

CTS – Cognizant Technology Solutions

TB – Tera Byte

CCTV – Closed circuit television

BCP – Business Continuity Plan

DB – Database

DC – Data Centre

DR – Disaster Recovery

CPU – Central Processing Unit

SAN – Storage Area Network

SQL – Structured Query Language

SSL – Secured Socket Layer

HVAC – Heating, Ventilation and Air Conditioning

UPS – uninterrupted power supply

IDC – International Data Corporation

DG – Diesel Generator

IP – Internet Protocol

SMTP – Simple mail transfer protocol

SLA – Service level agreement

GB – gigabytes

RAM – Random access memory

HDD – Hard disk drive

DNS – Domain name system

SSAE - Statement on Standards for Attestation Engagements