TENDER SPECIFICATION FOR PROCURENT OF LANGUAGE LAB HARDWARE AND SOFTWARE

1. **Name of the Equipment/Service.**   Language Lab.

2. **Purpose.** The purpose of this project is to

    i)   **Provide Basic Understanding of English Language.**

    ii) **To understand word meaning and pronunciation necessary in NAVAL personals life**

    iii) **To explain subjects in English occurs in Daily and professional life of a NAVAL personal**

    iv) **To hear pronunciation of words or sentences in English and practice those words to gain efficiency in English pronunciation**

3. **Supplier.**   Name and full address of the supplier with email address is to be mentioned.

4. **Specification of Hardware:**

Name of Item	Qty	Supplied Brand/Model/Standard
All in One Computer	40	*Brand: Dell or HP or Asus or Sony or Lenovo* *Model: Any* *Country of origin: Any* *Display Size: 18 to 21 inch* *Processor: Intel Core i3 or above* *Generation: Minimum 6th Generation or above* *Display Type: LED* *Shape: wide screen* *Ram: 4GB or above*

All in One Computer		*Bus Speed: 2100 or above* *Hard Disc: 500 GB or above* *Lan: WLAN, Ethernet or Bluetooth* *Audio: On Board* *Graphics: HD graphics* *Optical Drive: Yes* *Mouse & Keyboard pair: wireless robust pair of mouse and keyboard from Logitech or HP* *Operating system: Windows 10 professional* *Contrast Ratio: High.*
Teacher Console	1	*Display Size: 17 to 21 inch* *Processor: Intel Core i5 or above* *Generation: Minimum 7th Generation or above* *Clock Speed: 3Ghz or above* *Display Type: LED* *Shape: wide screen* *Ram: 4GB or above* *Bus Speed: 2400 or above* *Hard Disc: 2 TB* *Lan: WLAN, Ethernet or Bluetooth* *Graphics: HD graphics* *Optical Drive: Yes* *Mouse & Keyboard pair: wireless robust pair of mouse and keyboard from Logitech or HP* *Operating system: Windows 10 professional* *Contrast Ratio: High.*

Server PC	1	*Display Size: 17 to 21 inch* *Processor: Intel Core i5 or above* *Generation: Minimum 7th Generation or above* *Clock Speed: 3Ghz or above* *Display Type: LED* *Shape: wide screen* *Ram: 8GB or above* *Bus Speed: 2400 or above* *Hard Disc: 2 TB* *Lan: WLAN, Ethernet or Bluetooth* *Graphics: HD graphics* *Optical Drive: Yes* *Mouse & Keyboard pair: wireless robust pair of mouse and keyboard from Logitech or HP* *Operating system: Windows 10 professional* *Contrast Ratio: High.*
UPS	45	*Country Of origin: Bangladesh* *Input Voltage: 160~275v* *Output Voltage: 220v* *Capacity: 600va* *12v 7.5amp battery* *Backup time – 15 minutes*

Robust Headphone With speaker	41	*Comfortable headband cushion and suitable for long time operation* *Adjustable headphone and speaker* *Microphone with noise cancelling function* *Minimum 2m connector* *Stereo surround sound* *Loudspeaker output: 30mw or above* *Maximum input power: 100mw* *Frequency response: 20 – 20000 Hz*
Network Laser Printer	1	*Brand: Hp, Canon or any renowned Brand* *Network Connectivity: Yes* *Original toner*
Document Camera	1	*Country of origin: China or korea* *High definition* *Illumination Lamp* *SNR >-250db* *Auto focus with optical zoom* *Camera rotation should be over 300 degree both horizontal and vertical* *Shooting area: 380x280* *Digital zoom* *CCFL led light*

Multimedia Interactive Display	1	*Display size: 65 inch or above* *Aspect Ratio: 16:9* *Resolution: 1920x1080* *Touch point: 10 point* *Writing: pen or finger* *Minimum view angle: 178 degree* *Cursor speed: 300 points/second* *Contrast ratio: 500:1* *OPS Computer: No* *Brightness: 350 cd*
Network Switch	1	*Brand: D-Link, Cisco or any Renowned brand* *Number of ports: 48* *Managed switch* *Ram:128mb minimum* *Flash memory:16mb minimum*
Outdoor Column speaker	4	*Column type* *Rated power: minimum 20w* *Connected by speaker cable* *Frequency response: 175Khz* *Water color cable*

UHF wireless and Hand microphone	1	*With 1 hand and 1 tie clip mic* *Country of origin: Taiwan*
AMPLIFIER	1	*Country of origin: Taiwan* *Minimum 60-90watt range* *Low Attenuation* *>-85db signal to noise ratio* *220volt power supply*
Chair	42	*Heavy duty robust chair*
Student Table	40	
Teacher Table	1	*90 SFT*
Panel board	1	*Power cable, Sticker, Packaging material*
Network Cable		*Cat-6 cable*

4.   **Functional Specifications of the Software System**. Overall software would be divided to following parts:

- **Teachers module**

- **Students Module**

- **Pronunciation software**

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5.   **Design and Architecture to be Used for the Software System**. The Software System shall generally include (but not limited to) following design and architectural features:

Teacher / Instructor module-

i)   **Interface: User Interface of the overall module should be easy to comprehend and no unnecessary or complicated option should be there to make user confused of the system. Be user friendly and have common look and feel for all user interfaces**

ii)   **Broadcast screen: Teacher should be able to broadcast their computer screen to student computer.**

iii)   **Voice chat: Teacher should be able to chat with individual student.**

iv)   **Call receive: Teacher should be able to receive student call.**

v)   **Message Passing: Teacher should be able to pass text or message to student software**

vi)   **Blank screen: Teacher should be able to Log off or blank student screen from teacher console to gain attention**

vii)   **View student screen: Teacher should be able to view individual student screen without student's attention in teachers console.**

viii)   **Share student screen: Teacher should be able to share one individual students screen with whole class**

ix)   **Control Student screen: Control Individual student screen and close and open application from teacher console**

x)   **Record audio and transfer: Teacher should be able to record mp3 audio file and save it and share with individual student.**

xi)   **Get Audio: Teacher should be able to collect file of a students recording of a comprehension for evaluation**

xii)   **Live stream video: Teacher should be able to play a live video and stream through server to individual or all students console**

xiii)   **File transfer: Instructor should be able to transfer file through ftp or http server or directly to student computer and save any file to server for later evaluation.**

xiv)   **Exam creation: Teacher should be able to create time-based examination module for students. Exam question type could be true/false, multiple choice or fill in the blanks. Instant marking of exams should be available to teacher and students for later evaluation. Vocabulary test**

xv)   **Interactive panel content: Teacher should be able to share Interactive panel content with student.**

xvi)   **Audio share: Teacher should be able to share audio for student listening activity and prepare exam test for based on that**

xvii)   **Password encryption: Teacher module should be password protected with necessary security through hashing algorithm**

Student module:

i) **Share screen: Student should be able to broadcast their computer screen to teacher computer upon teacher request.**

ii) **Voice chat: Student should be able to chat with individual student and teacher about a topic.**

iii) **Call receive: Student should be able to receive teacher call.**

iv) **Message Passing: Student should be able to receive text or message to teacher and another student software**

v) **View Teacher screen: Student should be able to view Teachers screen**

vi) **Share student screen: Student should be able to share their screen with whole class**

vii) **Record audio and transfer: Student should be able to record mp3 audio file and save it and share with teacher for evaluation.**

viii) **Share Audio: Student should be able to share audio file of a recording of a comprehension for evaluation**

ix) **View Live stream video: Student should be able to play live stream video through server**

x) **File transfer: Student should transfer file through ftp or http server or directly to server computer.**

xi) **Interactive panel content: Student should be able to view Interactive panel content shared by teacher.**

xii) **Audio share: Teacher should be able to share audio for student listening activity and prepare exam test for based on that**

Pronunciation test software with text to speech

1. **Student should speak or pronounce any word provided by the teacher in their console. The software should be able to provide accuracy of pronunciation by producing marking in different range**

2. **Software should run without internet.**

3. **Software should have a text to speech option where student can hear the original pronunciation before pronouncing them self.**

4. **The marking of the pronunciation accuracy should be based on student confidence and native dialect pronunciation accuracy.**

5. **The voice of Text to speech should be British accent**

6. **Text to speech software should have the option of recording of audio and sharing the audio file with class.**

6. **Licensing and software platform.**

a.   Software should be desktop based capable of running in offline mode.

b.   There should be no license restriction for software based on number of computers. Supplier should provide license upon demand without additional cost

c.   Have comprehensive arrangements for data-backup (hot and cold backup) that allows System Administrator to schedule the backup at various time and various locations.

6.   **Overall Scope of Works and Deliverables.** The overall scope of works and deliverables for the Software project will be as follows:

Carry out detailed System Study and submit detailed Software Requirement Specifications (SRS) to BN for approval.

b.   Develop the complete Software System as per approved SRS.

c.   Carry out Installation, Test and Trial of developed Software System.

d.   Provide detailed Technical Manuals and User Manuals for complete Software System.

e.   Provide comprehensive Training to all Users of the Software System.

f.   Provide 01 (one) year free Warranty Maintenance Support (Date of Acceptance of the Software by BN).

g.   Provide paid Maintenance Support subsequently for 01 (one) year.

7.   **Development Platform.**   The development platform including database should be 'Microsoft' products to ensure future interoperability and compatibility between different software already developed and to be developed in future.

System/Platform	Recommended Software
Operating system	MS Windows Server/Linux
Database platform	MS SQL Server/MY SQL
Development language	.NET
Web Server	MS Internet Information Service (IIS) Apache

8.   **Software Requirement Specifications (SRS)**. After signing of the Contract, the Contractor shall first complete the detailed System Study and analyse the functional/ technical requirements of all Modules/ Sub-modules of the System. Then the Contractor will submit a comprehensive document titled 'Software Requirement Specifications (SRS)' to BN. BN will then scrutinize the SRS and approve the document (with amendments where necessary in consultation with the Contractor). The SRS shall contain following information:

a.   Detailed Process-Flow Diagrams.

b.   Proposed solution Architecture and Use-Case-Documents.

c.   Complete set of Screen-Shots for all Modules and Sub-Modules at different levels of Users (including for the menus and submenus).

d.   Ways and Means of Data Entry Operation.

e.   Hardware Requirement Reports.

f.   Network Requirement Reports.

g.   Third Party Software Requirement Reports.

Terms and Conditions of Tender

10.   **Qualification of the Bidder.**   Only the renowned Bangladeshi software firms who are a BASIS member with having enlistment with BN fully meet the under mentioned criteria shall participate in this tender. Incomplete or partial compliance will not be acceptable to BN.

a.   The participating firm must have own valid trade license with having 10 years experience in software development. Work experience of fully running customized Procurement Management Software development work has been

done with any of the Bangladesh Government entity or Defence level is mandatory.

    b.   All list of clients with contracts should be attached with the offer for reference. The firm must have adequate number of qualified software development personnel in addition to the followings:

        (1)   Recently developed and implemented similar system for a defence organization with a large number of active users.

        (2)   Be willing and able to fully demonstrate their 'showcase' Procurement Management Software project to the Tender Evaluation Committee at NSD Khulna.

        (3)   Registered member of BASIS & BCS.

    c.   The bidder must quote all items and services stipulated in this Tender. Incomplete offer will be rejected.

11.   **Validity of Offer**. The offers shall remain valid for at least for 01 (One) months from the date of submission of the Tender.

13.   **Project Implementation Committee**. After signing of the Contract, a Project Implementation Committee will be formed by BN authority, consisting of 01 (one) member from the Contractor and 04 (four) members from the BN. Member from the Contractor shall mainly be responsible for ensuring quality of services during design, development, installation & implementation phases and members from the BN shall be responsible for providing all sorts of data & ideas during all phases of the software development and implementation.

14.   **Bid Documents.**   Each bidder shall submit his offer containing following documents described below. Incomplete or partial offers will not be acceptable to BN:

        (1)   Copy of Trade License as Software Developer (renewed up to December 2018).

        (2)   Copy of TIN Certificate.

        (3)   Copy of VAT Certificate.

15.   **Security Deposit**. If the bidder is not enlisted in NSD Khulna as a Supplier, he is to submit 5%-10% of total bid amount in Pay Order/DD in favor of the "OIC NSD Khulna" as earnest money. However, the successful bidder will deposit the earnest money as PG before signing the contract. PG will be released after final acceptance of the software by BN.

16.   **Signing of Contract**.   On completion of the bidding process, a Contract will be signed with successful bidder on a BDT 300.00 Non-Judicial-Stamp. Expenditure for such contract shall be borne by the bidder.

17.   **Bidding and Tender Evaluation Process**.   The bidding and tender evoluation process will be carried as described hereunder:

    a.   Each bidder will prepare and submit his offer.

b.   Based on the overall technical qualification and demonstration of the 'showcase' software by respective participating bidder. TEC shall select names of only those bidders whom they consider as technically acceptable.

d.   BN reserves the right to accept the whole or part of any offer, including the right to reject any or all offers without showing any reason whatsoever. Conditional offer shall be rejected.

18.   **Activity Schedule/ Timeline of the Project.** The time line for implementation of the Project (commencing from the Date of Signing of the Contract) shall be :

21.   **Documentation**.   Technical Manuals and User Manuals of the complete Software System are to be prepared comprehensively by the bidder, so that BN personnel can run the System without any assistance of the Contractor's personnel.

22.   **Training Support**. The whole system from the beginning is to be developed along with NSD Khulna team in NSD Khulna. The bidder will provide adequate training to the nominated personnel of NSD Khulna on the whole development process from the system study to software development, installation, total system operation and maintenance of the software. Team should be given sufficient training so that they become competent enough to use the software and have access to the technical documentation of the system for maintenance and debugging of the software.

Testing and Acceptance.

a.   Testing and Acceptance process shall be done to ensure that the Software System complies with the approved SRS. (It should be completed within stipulated period stated in the Time Line).

b.   The Contractor will prepare a comprehensive Test Plan along with Test Procedures for all levels of technical and functional testing of the Software System.

c.   Subsequently, the Contractor will provide necessary assistance to BN officials in completing the tests as per Test Plan.

d.   On satisfactory completion of tests and trials, BN will issue an Acceptance Letter to the Contractor**.**

23.   **Warranty Maintenance Support/Service.**   A   period   of   one   year support/service shall commence from the date of final acceptance by NSD Khulna (After satisfactory installation, test and trials). Following support shall be provided by the supplier:

a.   Software is free from bugs and errors and remains fully functional.
b.   Software trouble shooting.
c.   Performance monitoring.
d.   24 X 7 Technical support assistance (on call).
e.   Ensure security of the software from any sorts of cyber attack.
f.   Any new addition or modification in existing modules, form and reports.

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g. Database protection, backup and recovery.

h. The supplier shall be responsible for keeping the supplied software up and running in the system during the support period by deploying a dedicated resource person for the purpose.

j. The supplier shall provide support service for a minimum period of 24 months for software.

k. For the defect of any part of the software remain non-operational for a certain period within support service time, the support service time will be extended by the same period.

l. If any defect occurs with the application during the stipulated period, NSD Khulna will inform the supplier about the defect by quickest means. Upon receipt of such information, the supplier shall deploy dedicated representative to NSD Khulna site earliest (by next 02 days) trouble shoot the system free of cost.

25. **Maintenance Support after Warranty Period**. After the Warranty period, the Contractor will provide maintenance/development support as required through mutual agreement. Any new development there could be a sub contract to make it under this main contract.

     a. Bug-fixation.
     b. Software trouble shooting.
     c. Performance monitoring.
     d. Database protection, backup and recovery.
     e. Technical support assistance (on call).
     f. Ensure security of the software from any sorts of cyber attack.
     g. Any new addition or modification in existing modules, form and reports.

26. **Additional Development**. In case of development of any new module or application the development work will be out of support service. The price for the development work will be fixed by negotiation between two parties.

27. **Ownership of the Software**. The System Study Reports, Software Requirement System, the developed Software System (Executables / Source-Codes with dll files), Databases (Structures / Contents) etc shall be classified 'materials' and sole property of BN. None of these 'materials' (wholly or partly) shall ever be communicated by the Contractor to any third-party (person or organization) by any means.

28 **Security Clearance**. Immediately after signing of the Contract, the supplier will submit the bio-data of his Engineers/Technicians to BN authority for obtaining security clearance. If any employee is not 'cleared' by BN, he/she shall be substituted. In any case, the supplier (or his employees) will guarantee complete 'security of information' while working with this project.

29. **Loss of Data**. The supplier shall be responsible for any loss of records or data of BN during any procedures undertaken in pursuant to this job. Both parties shall take all necessary precautions and steps to prevent such loss.

30.   **Compliance Statement**. A compliance statement fulfilling all the required information is to be mentioned with the offer for evaluation of tender.   Any deviation from the specification is also to be mentioned in the offer. Any deviation from this specification is also to be clearly mentioned in the offer. Mere mentioning of Yes/No will not be enough and detailed technical data / information are to be provided.

31.   **Liquidated Damage**.   Liquidated Damage for late delivery will apply as per existing BN procurement rules.

32.   **Termination of the Project**.   Both parties (either BN or the Contractor) shall be entitled to terminate the Contract at any time by providing written notice to the other party with appropriate reasons described hereunder. In event such notice has been served by a party with valid reasons, the Contact shall be deemed terminated after 30 (thirty) days of receipt of the notice by the other party. The valid reasons for termination of the Contract shall be as follows:

     a.   If the Government of Bangladesh or any of its agency impose any policy / regulation that forces the Contactor to terminate the service for any reason.

     b.   If the Contracting firm is dissolved, or taken over, or files a voluntary petition for bankruptcy; or if an order is passed pursuant to any law relating to amalgamation, winding up, bankruptcy, insolvency or re-organization of the firm.

     c.   If the Contracting firm commits any gross material or security breach of this Contract and the same is not rectified or remains uncured even after 30 (thirty) days following written notice given by BN.

     d.   If a Force Majeure condition (as defined in this Contract) persists for more than 60 (sixty) days.

33.   **Delivery**.   The system will be installed at BN. All documents and deliverables are to be delivered at following address:

Annex A