

TENDER SPECIFICATION FOR DEVELOPMENT AND INSTALLATION OF CENTRAL DATABASE SYSTEM FOR BN HOSPITAL MANAGEMENT SOFTWARE

1. **Name:** Development and installation of Central Database System for BN Hospital Management Software.
2. **Purpose:** The tender aims to select a reputable software provider to develop central database system for BN Hospital Management Software (HMS) and installation & intergradation works in BNS HAJI MOHSIN (BNS HM), BNS PATENGA (BNS PTG), BNS UPSHAM (BNS UPSM) & CMH DHAKA.
3. **Quantity.** 01 (One) Package.
4. **Bidder's Identity, Qualification & Certification.**
 - a. **Bidder (Full Name and Address):** Name and full address with e-mail of bidder/ local agent to be mentioned.
 - b. **Bidder Qualification:** The bidder shall have followings eligibility qualification:
 - (1) Have valid trade license (renewed up to June 2025) as an IT equipment bidder /IT service provider/ software development firm.
 - (2) Registered member of BASIS/ BCS or equivalent organization.
 - (3) A certified partner/ importer/ distributor of the hardware vendor. Proof of certificate shall be submitted with the offer.
 - (4) Shall have at least 02 (two) certified IT professional (server and Firewall setup) as permanent employee. CV of the employees shall be submitted with the offer.
 - c. **Enlistment:** The bidder shall be an enlisted bidder of NSSD Dhaka.
 - d. **Experience:**
 - (1) The bidder shall have at least 05 years' working experience in IT and healthcare sector.
 - (2) The bidder shall have at least 01 (One) major clients in defense/ govt/ corporate sector as proof his/ her experience. Client list along with documentary evidence shall be submitted with the offer.
 - e. **Certification:**
 - (1) Copy of Trade License as an IT service provider (renewed up to June 2025).
 - (2) Copy of TIN Certificate.
 - (3) Copy of VAT Certificate.
 - (4) Copy of BCS/ BASIS Certificate.
 - (5) The bidder shall submit CVs of technical resource personnel (at least three certified engineers).
5. **Source of Supply:** Source of supply to be mentioned included port of shipment (if imported).
6. **Scope of Supply:**
 - a. Configuration of Software (HMS) in BNS UPSM & PTG and prepare the software for integration with central database system as per technical requirement as stated in technical specification.
 - b. Development of Central Database System including installation, integration and configuration as per technical requirement as stated in technical specification.
 - c. **Manual.** 02 sets of manuals (English Language) shall be provided with the system at the time of delivery:
 - (1) Operating Manual.
 - (2) Installation Manual including system Installation layout (hard copy & soft copy).

d. **Software Backup.** Bidder shall provide all backup software related to server and other devices in CD/ DVD along with step-by-step installation instructions manual.

e. **Training.**

(1) **Operator Training.** The bidder is to give operator training to three groups (each group at least 10 BN personnel) at BNS HM, BNS PTG and BNS UPSM. The detailed training description is given in **Annex A Para-2.**

(2) **Maintenance Training.** The bidder is to give Maintenance training to three groups (each group at least 10 BN personnel) at BNS HM, BNS PTG and BNS UPSM. The detailed training description is given in **Annex A Para-1.**

7. **Technical Specification.** The technical specification and work details in accordance with scope of supply are as follows:

a. **Configuration of HMS in BNS UPSM & PTG.** The bidder is to install the HMS in BNS UPSM & PTG to the delivered hardware. Later the bidder is to prepare the software and system of BNS HM, BNS PTG and BNS UPSM for integration work with central database system. The bidder must coordinate with Hardware supplier (Express Systems Ltd) during the Installation work. The Bidder must stay at installation sites during the installation operation. If any Additional items are required during the Installation work the bidder will bear the cost of Additional items.

b. **Development of Central Database System:** The bidder shall develop and configure the HMS to the delivered hardware for central database system. During the installation the bidder must coordinate with Hardware supplier (Express Systems Ltd).

c. **Installation of Central Database System:** The bidder is to prepare and install the HMS to the delivered hardware of central database system (BNS HM). During the installation the bidder must coordinate with Hardware supplier (Express Systems Ltd). In this phase, the bidder is to prepare the central database system for the integration work.

d. **Integration of Central Database System:** The bidder is to integrate the central database system with the software and system running in BNS HM, BNS PTG, BNS UPSM and CMH Dhaka. For the integration a separate data connectivity will be established among BNS HM, BNS PTG and BNS UPSM. During the integration work the bidder must coordinate with data connectivity supplier (ISP) for the completion of the said work.

8. **Test & Trial.** System test/ trail shall be completed within the delivery period mentioned in the contract. A standard test procedure shall be developed by the bidder in consultation with user and test report shall be submitted to ACINS with a copy to DNIT (NHQ).

9. **Acceptance.** The User will issue acceptance certificate upon completion of the said work.

10. **Warranty.**

a. A warranty certificate is to be submitted for at least **12** months from the date of acceptance of the items after satisfactory test/ trial and acceptance by ACINS Dhaka.

b. If any defect/discrepancy/bug arises within the warranty period, then the respective problem is to be solved within 24 (twenty-four) Hours from getting the notification from buyer.

c. Warranty period shall be extended for the same amount of time, the subject work remains non-optional.

d. The warranty services shall include the followings:

(1) To ensure all newly installed software and services are free from bugs and errors and remain fully functional.

(2) To ensure necessary trouble shooting as and when required.

(3) To assess the system performance in quarterly basis.

(4) To provide technical support assistance (on call/ online/ on site) as required.

(5) To update the items software subscription (if needed) during the warranty period.

e. The Bidder shall provide on-call support within 30 min by competent engineers/technicians to maintain hardware, software and network Troubleshooting or major fault or failure in the system.

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11. **Price Quotation.** The bidder should quote the item-wise price (in BDT) according to scope of supply and requirement as stated in the tender documents confirming the technical specifications. The quoted price should include all government taxes (VAT, AIT etc.).
12. **Terms of Payment.** All payments shall be made by Buyer (BN) to the supplier through SFC (Navy) in accordance with the following payment terms: (VAT and TAX shall be deducted from the payment as per government rules).
 - a. 25% of contract value will be paid on submission of para 6 (a). An acceptance certificate will subsequently be issued by the buyer upon completion of the work.
 - b. 75% of contract will be paid on submission of completion of the successful delivery of the rest of items as per scope of the supply.
13. **Breach of Data Security.** The bidder shall undertake utmost measures to preserve the integrity of user data, records and IT facilities. For any breach of such integrity due to bidder activities, the bidder will be liable and subject to compensation and legal measures as applicable.
14. **Compliance Statement.** A clear and complete compliance statement of the tender supported by the product catalogue with necessary specification and drawing/ diagram will be submitted for evaluation of the quotation. Incomplete compliance statement will attribute to cancellation of the offer. If any clause of this specification does not commensurate with offered item practically, the deviation has to be mentioned clearly.
15. **Validity of Offer.** The offer shall remain valid for at least 06 (six) months from the date of submission of the tender.
16. **Delivery of Item.**
 - a. Delivery Time: 60 days from the date of purchase order
 - b. Delivery Point: NSD Khulna, NSD Chattogram, NSSD Dhaka.

Annex:

- A. Customer Requirement Specification - 04 (Four) pages.

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 Deputy Director of Naval Plans
 Naval Headquarters
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 Date

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 DNAT&S, Member

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A H M RAPIQUL ISLAM
 Commodore BN
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 Naval Headquarters
 Banani, Dhaka-1213
 Date 01.09.24

CUSTOMER REQUIREMENT SPECIFICATION

1. **Software Maintenance Training**

Module-1: Introduction to Software Maintenance

- a. **Definition of Software Maintenance:**
- (1) Types of maintenance (corrective, adaptive, perfective, preventive)
 - (2) Maintenance lifecycle
- b. **Importance of Effective Maintenance:**
- (1) Ensuring software quality and reliability
 - (2) Supporting business operations
 - (3) Managing technical debt
- c. **Challenges and Best Practices:**
- (1) Common maintenance challenges
 - (2) Best practices for effective maintenance

Module 2: Software Architecture and Codebase Understanding

- a. **Software Architecture:**
- (1) Overview of the software's architecture
 - (2) Components, modules, and their interactions
- b. **Codebase Exploration:**
- (1) Navigating the codebase
 - (2) Understanding coding conventions and standards
 - (3) Using version control systems (e.g., Git)

Module 3: Change Management and Version Control

- a. **Change Management Processes:**
- (1) Change request management
 - (2) Impact analysis
 - (3) Change implementation and testing
- b. **Version Control Systems:**
- (1) In-depth use of Git (or other version control systems)
 - (2) Branching and merging strategies
 - (3) Committing, pushing, and pulling changes

Module 4: Debugging and Troubleshooting

- a. **Debugging Techniques:**
- (1) Identifying and isolating defects
 - (2) Using debugging tools and techniques
 - (3) Setting breakpoints and stepping through code
- b. **Troubleshooting Common Issues:**
- (1) Performance issues
 - (2) Compatibility problems
 - (3) Security vulnerabilities

Module 5: Testing and Quality Assurance

- a. **Testing Strategies:**
 - (1) Unit testing, integration testing, system testing, acceptance testing
 - (2) Test case design and execution
- b. **Quality Assurance Metrics:**
 - (1) Defect tracking and analysis
 - (2) Code quality metrics (e.g., code coverage, cyclomatic complexity)
- c. **Continuous Integration and Continuous Delivery (CI/CD):**
 - (1) Understanding CI/CD pipelines
 - (2) Setting up automated testing and deployment

Module 6: Documentation and Knowledge Transfer

- a. **Technical Documentation:**
 - (1) Creating and maintaining user manuals, developer guides, and API documentation.
 - (2) Using documentation tools (e.g., Dioxygen, Sphinx)
- b. **Knowledge Transfer:**
 - (1) Documenting processes and best practices
 - (2) Training and mentoring new maintainers

2. **Software Operator Training****Module 1: Introduction to the Software**

- a. **Software Overview:**
 - (1) Purpose and functionality
 - (2) Key features and benefits
 - (3) System requirements (hardware and software)
- b. **User Interface Basics:**
 - (1) Navigation and controls
 - (2) Common elements (menus, toolbars, buttons)
- c. **Basic Operations:**
 - (1) Creating, opening, and saving files
 - (2) Printing and exporting data

Module 2: Core Functions and Features

- a. **In-depth Exploration:**
 - (1) Detailed explanation of key features and functions
 - (2) Practical examples and demonstrations
- b. **Data Entry and Management:**
 - (1) Data types and formats
 - (2) Data validation and error handling
 - (3) Data import and export
- c. **Reporting and Analysis:**
 - (1) Report creation and customization
 - (2) Data analysis and visualization
 - (3) Generating reports and insights

Module 3: Customization and Configuration

- a. **User Preferences:**
 - (1) Setting up user profiles and preferences
 - (2) Customizing the user interface
- b. **Software Configuration:**
 - (1) Adjusting settings and parameters
 - (2) Integrating with other systems
- c. **Troubleshooting and Problem-Solving:**
 - (1) Common issues and solutions
 - (2) Troubleshooting techniques

Module 4: Advanced Topics (Optional)

- a. **Scripting and Automation:**
 - (1) Introduction to scripting languages
 - (2) Automating tasks and workflows
- b. **API Integration:**
 - (1) Integrating with other software systems
 - (2) Using APIs to exchange data
- c. **Security and Compliance:**
 - (1) Data security best practices
 - (2) Compliance with industry regulations

3. **Technical Specs and Description of the Works**

Ser.	Module	Feature	Remarks
1.	Database Installation		All the works described in this table are to be done in Central Database System (BNS HM), BNS PTG and BNS UPSM.
2.	Gap Analysis		
3	DR Server Preparation		
4.	Migration		
5.	Server Preparation and App Deployment	Connectivity	
		Functionality	
		Integrity	
		Master Data Setup	
6.	Application Preparation	Access Control Setup	
		User Setup	
		Doctor Setup	
		End User Station Preparation	
		a. Lan Connectivity	
		b. Software availability	
		c. Printer functioning	
		LIS machine attribute setup	
		LIS Machine integration	
		7.	
Prescription			
CNE/RE Billing			
Pathology work follow			
Pharmacy			
LP			
8.	Mock Preparation and Execution Go-Live	Live Plan	
		Testing Data Truncate	
		Patient Appointment	
		Prescription	
		CNE/RE Billing	
		Pathology Work Follow	
		Pharmacy	
		LP (Local Purchase)	
End-user instant assistance and support			

4. Central Database Workflow Diagram

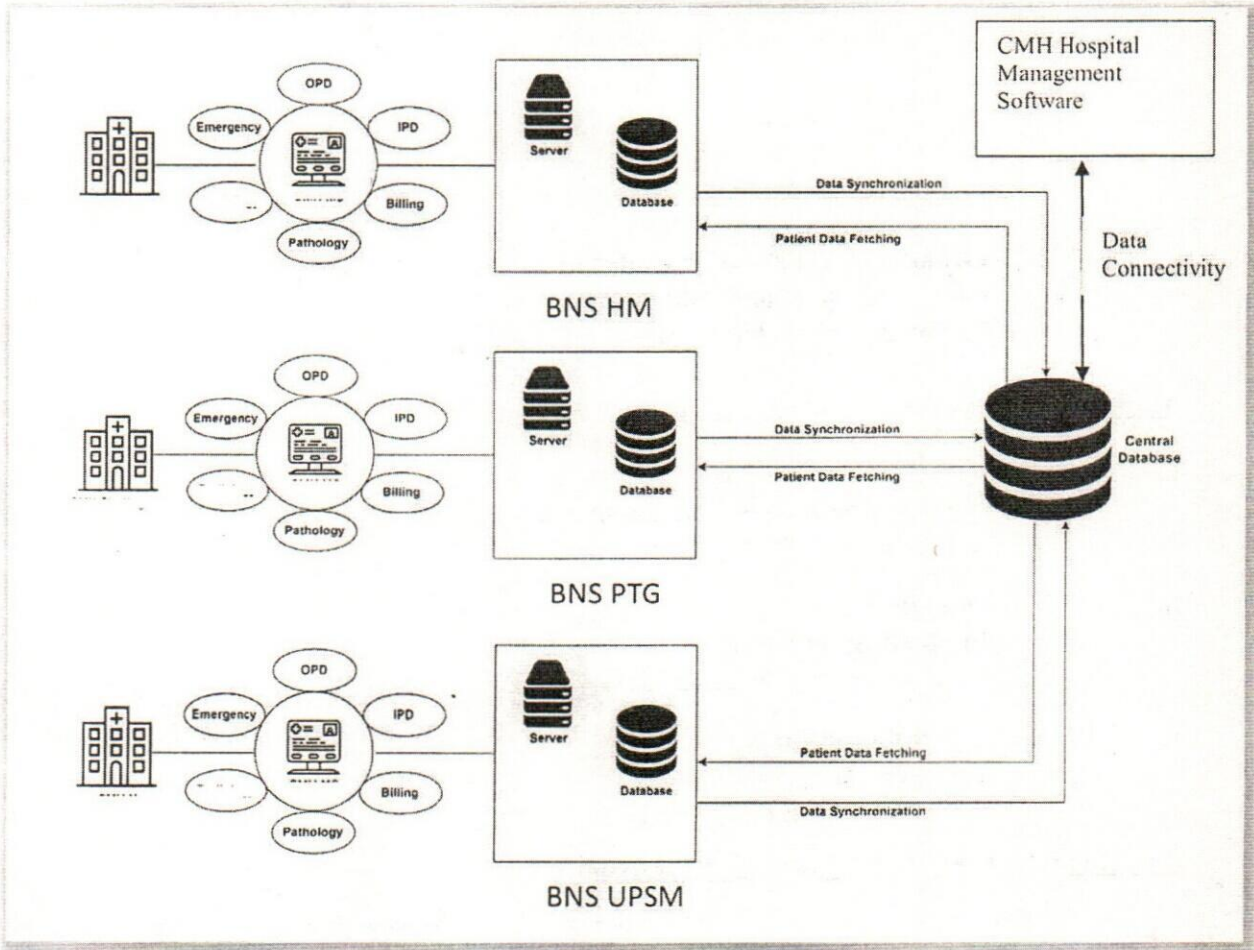


Fig-1: Central Database System