# TECHNOLOGY REQUEST FOR PROPOSAL (RFP)

## Project: Establishing a Smart Warehouse Management System

Website: https://www.gemadept.com.vn/en/index.html

### 1. Introduction

Gemadept Corporation is soliciting proposals from qualified technology providers to design, implement, and support a Smart Warehouse Management System (WMS). This system will incorporate IoT sensors, RFID technology, and data analytics to enhance our warehouse operations. The successful implementation of this project is crucial for optimizing inventory management, reducing storage costs, minimizing errors, and streamlining our warehouse operations.

### 2. Business Case

Gemadept Corporation aims to enhance the efficiency and effectiveness of its warehouse operations through advanced technology. By implementing a Smart WMS, we anticipate the following benefits:

- **Improved Inventory Accuracy:** Real-time tracking and monitoring using IoT sensors and RFID technology to reduce discrepancies and stockouts.
- **Cost Reduction:** Efficient storage and retrieval processes to minimize warehousing costs and optimize space utilization.
- **Error Minimization:** Automated data capture and processing to reduce human errors in inventory handling and reporting.
- **Operational Streamlining:** Enhanced visibility and analytics to streamline workflows, improve decision-making, and accelerate order fulfillment.

### 3. Project Scope

The project encompasses the following components:

- **System Design:** Develop a comprehensive design for the Smart WMS that integrates IoT, RFID, and data analytics. This includes detailed technical specifications, architecture, and workflow diagrams.
- **Hardware Procurement:** Supply and installation of IoT sensors, RFID tags, readers, and necessary network infrastructure.
- **Software Development:** Development or customization of WMS software to meet specific requirements, including user interfaces, data processing, and integration capabilities.
- **System Integration:** Seamless integration with existing ERP systems, databases, and other IT infrastructure to ensure data consistency and operational continuity.
- **Implementation and Deployment:** Installation, configuration, and deployment of the system across all designated warehouse facilities, including initial testing and validation.
- **Training and Support:** Comprehensive training programs for warehouse staff and ongoing technical support to ensure effective system usage and maintenance.

## 4. Technical Requirements

### 4.1 IoT Sensors

- **Environmental Monitoring:** Sensors for temperature, humidity, and other environmental factors to ensure optimal storage conditions.
- **Asset Tracking:** Sensors to monitor the location and movement of inventory within the warehouse.
- **Network Infrastructure:** Robust and scalable wireless network to support IoT devices, including gateways and communication protocols.

### 4.2 RFID Technology

- **RFID Tags:** Durable and versatile tags for various inventory items, including pallets, crates, and individual products.

- **RFID Readers and Antennas:** Fixed and handheld readers to capture RFID data efficiently across different warehouse zones.
- **Middleware:** Software to manage RFID data processing, integration with the WMS, and ensure real-time data availability.

### 4.3 Data Analytics

- **Analytics Platform:** A robust platform to process and analyze data from IoT sensors and RFID readers, providing actionable insights.
- **Dashboards and Reports**: Customizable dashboards and reporting tools to visualize real-time inventory status, performance metrics, and historical trends.
- **Predictive Analytics:** Advanced analytics capabilities to forecast demand, optimize inventory levels, and identify potential issues proactively.

## 5. Implementation Timeline

The project is expected to be completed in phases over a period of 12 months. Key milestones include:

- Phase 1: Requirement Analysis and Design (Months 1-2)
    - Detailed requirements gathering and documentation
    - System design and architecture planning
- Phase 2: Hardware Procurement and Setup (Months 3-4)
    - Procurement of IoT sensors, RFID tags, and network equipment
    - Installation and configuration of hardware components
- Phase 3: Software Development/Configuration (Months 5-7)
    - Development or customization of WMS software
    - Integration with hardware and existing IT systems
- Phase 4: System Integration and Testing (Months 8-9)
    - Integration of software and hardware components
    - Comprehensive testing and validation of the system
- Phase 5: Deployment and Training (Months 10-11)

    - Deployment across all warehouse facilities
    - Training programs for warehouse staff and administrators
- Phase 6: Go-Live and Support (Month 12)
    - Final system launch
    - Provision of ongoing technical support and maintenance

## 6. Proposal Submission Guidelines

### 6.1 Content of the Proposal

Proposals must include the following information:

- Executive Summary: Overview of the proposal, including the proposed solution and its key benefits.
- Company Profile: Detailed information about the vendor's company, including history, experience, qualifications, and relevant case studies.
- Technical Solution: Comprehensive description of the proposed solution, covering hardware, software, integration approach, and technical specifications.
- Project Plan: Detailed implementation timeline, including key milestones, deliverables, and resource allocation.
- Cost Estimate: Detailed cost breakdown, including initial setup, hardware, software, services, training, and ongoing support.
- References: Case studies or references from similar projects, highlighting the vendor's experience and success in implementing comparable solutions.

### 6.2 Submission Instructions

Proposals must be submitted electronically in PDF format to thomas@iist.vn by 02-June-2024.

All proposals must be clearly labeled with the project name and the submitting vendor's name.

Questions or requests for clarification must be submitted in writing to thomas@iist.vn by 30-May-2024.

A confirmation receipt will be provided upon successful submission of the proposal.

**7. Evaluation Criteria**

Proposals will be evaluated based on the following criteria:

- Technical Expertise: Demonstrated ability to deliver the proposed solution, including relevant technical capabilities and experience.
- Cost: Total cost of ownership, including initial implementation and ongoing maintenance and support costs.
- Project Plan: Feasibility and comprehensiveness of the proposed implementation timeline and milestones.
- Vendor Experience: Relevant experience and past performance on similar projects, including references and case studies.
- Support and Training: Quality and extent of support and training services offered, including post-implementation support.

**8. Terms and Conditions**

Gemadept Corporation reserves the right to accept or reject any or all proposals, and to request additional information or clarifications from vendors as needed.
All submitted proposals must remain valid for a period of 90 days from the submission deadline.
The selected vendor will be required to sign a formal contract with terms and conditions outlined by Gemadept Corporation, including confidentiality, data protection, and service level agreements.

**9. Contact Information**

For any questions or further information, please contact:
Name: Thomas
Title: CIO
Email: thomas@iist.vn
Phone: 0909258664

Gemadept Corporation looks forward to receiving your proposal and working together to establish a cutting-edge Smart Warehouse Management System.