**Software Requirements**

**Specification**

for

Hardware and Equipment Management System (HEMS)

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Revision History

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# Introduction

## Purpose

Software Requirements Specifications for HEMS. DCPI aims to maintain and monitor their hardware and equipment assets by migrating their current manual HEMS into an automated, PHP MySQL Database System which will greatly reduce every transaction time.

## Document Conventions

In writing this SRS, every requirement statement has its own priority to be followed and specific personnel are expected to follow the particular requirement.

## Intended Audience and Reading Suggestions

This SRS is applicable to system administrators, system developers, management of the client DCPI. The document is divided into 6 parts. Introduction, Overall Description, External Interface Requirements, System Features, Other Nonfunctional Requirements, Other Requirements chronologically.

## Product Scope

The upgraded HEMS will provide the design and infrastructure of the system, will enable technicians to manage the hardware and equipment assets with ease by reducing the transaction time by 20% or more, provide accurate and up-to date information per item, provide automation of the current manual excel system by migrating it into PHP MySQL.

## References

SRS Template:

•http://moodle2.apc.edu.ph/pluginfile.php/82831/mod\_resource/content/1/srs\_template-1.pdf

# Overall Description

## Product Perspective

This document is the SRS for the proposed upgrade to the existing HEMS of DCPI.

## Product Functions

* Supervisor can send report to Technician Admin, Technician Purchaser, and Technician.
* Technician Admin, Technician Purchaser, Technician can read the report sent by Supervisor.
* Technician Admin can add, read, update, and archive equipment
* Technician Admin can add, read, update, and archive user accounts.
* Technician Purchaser can send purchasing approval letter to Management.
* Management can approve or decline purchasing approval letter sent by Technician Purchaser.
* System will notify the Technician admin when reorder point is reached.

## User Classes and Characteristics

•Admin Privilege – Technician Admins who has full control and access to the system.

•Technician Privilege – Technicians who has access and control to the monitoring and maintaining of the hardware and equipment assets, service control.

•Management Privilege – Management of departments that has access to the reports of the equipment usage, costs & budget concerns.

•Supervisor Privilege – Supervisors of each department that forwards the troubleshoot service request to the technicians for diagnosis.

## Operating Environment

The HEMS platform used are browsers that can process HTML and PHP codes. To transfer or connect the data, Apache Web Server and XAMPP will be used. All data that requires preservation, will be stored in a database powered by MySQL. The DCPI-HEMS are only accessible within the company and only authorized personnel can use the system.

## Design and Implementation Constraints

* Control and monitoring of system are limited to technicians only.
* The system can only be used for Hardware and Equipment assets only.
* Two servers to be used. 1st server is the main server and the 2nd server

for backup.

* The system will be used for intranet system only within the company.

## User Documentation

To be created and discussed with the client.

## Assumptions and Dependencies

The proponents of the project assumed that the workstations of the client can handle the HTML and PHP service and functions in connection with the client’s LAN network.

# External Interface Requirements

## User Interfaces

The user interface for the department supervisors is the troubleshoot service request interface so as to provide initial information for the technicians responding to the request.

The user interface for the technicians is the troubleshoot service requests interface that enables them to receive the troubleshoot service requests by the department supervisors for the technicians to respond.

The user interface for the technician admins is to manage the hardware and equipment assets and user accounts for the system.

## Hardware Interfaces

The software will be used on PC workstations particularly with windows OS and LAN connection within the departments of DCPI.

## Software Interfaces

The commands issued by the technicians, management and supervisors are all coded in PHP and HTML. The recommended web browsers to be used is Mozilla firefox and Google chrome. The database used Is MySQL or MariaDB through XAMPP.

## Communications Interfaces

LAN Connection among the department workstations is needed for the integration of the proposed system. Apache HTTP and PHP protocols are used in the communication between the database and the workstations.

# System Features

## Information Handling

4.1.1 High Priority

- The system shall generate the specified values / details information of the items.

4.1.2 Response

- The users must receive their respective and specified information requested to the system.

4.1.3 Functional Requirements

* REQ-1: Connected to HEMS
* REQ-2: User Account Logged In

## User Account Privileges Handling

4.2.1 High Priority

- The system must provide access and control accordingly to the user account privileges.

4.2.2. Response

- The users are given the functions and accessibility to the system according to their user account privilege once they logged in to the system.

4.2.3 Functional Requirements

* REQ-1: Connected to HEMS
* REQ-2: User Account Logged In

## Login / Logout Handling

4.3.1 Medium Priority

- The system must process the authenticity of the username and password of the user and provide or deny access.

4.3.2 Response

- The users enter their username and password and receives notifications regarding responses in logging in / out.

- The user session will be processed so as to login or logout the user account from the system.

4.3.3 Functional Requirements

* REQ-1: Connected to HEMS
* REQ-2: Workstation on system logon screen

## Hardware & Equipment Items Management

4.4.1 High Priority

- The system must process the specified create, read, update and archive commands by the tech admins.

4.4.2 Response

- The tech admins insert a new equipment item, updates the item information, archives the item once the item status is disposed.

4.4.3 Functional Requirements

-REQ – 1: Connected to HEMS.

-REQ – 2: Tech admin account logged in.

## User Accounts Management

4.5.1 High Priority

- The tech admin manages the user accounts of all the users using the system.

4.5.2 Response

- The tech admin creates a new user account, updates information details, archives a user account.

4.5.3 Functional Requirements

-REQ – 1:

# Other Nonfunctional Requirements

## Performance Requirements

* The system shall produce results in 15 seconds or less
* The system shall execute the commands issued in 15 seconds or less
* The system shall be accessible anytime.
* The system shall provide the corresponding user privilege to each user.

## Safety Requirements

* Only system admins can commit changes to the system and user accounts.
* Changes must be reviewed twice or thrice before being approved to avoid errors and damages to the system.

## Security Requirements

* Proper implementation of user accounts privileges must be maintained by the system at all times
* System admins must routinely check for data and information leaks to unrestricted and unprivileged personnel.

## Software Quality Attributes

* The system must process the requests with speed and accuracy.
* The system must remove redundancies to information

## Business Rules

* Supervisor requests troubleshoot service for workstations / equipment
* Technician troubleshoots the service request.
* Technician admins manages the items in HEMS.
* Technician admins manages the user accounts of HEMS.
* Management requests reports regarding equipment.

# Other Requirements

• Two servers can be used so that the second server will act as a backup.