Vision and Scope Document  
for  
Hardware and Equipment Management System (HEMS)

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Revision History

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| **Name** | **Date** | **Reason for Changes** | **Version** |
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# Business Requirements

DCPI’s Hardware & Equipment Management System is a manual system that is done by paperwork and through Microsoft Excel as means of storing and managing the Hardware and Equipment Assets of each department of the company. DCPI is currently open for upgrades and improvements to its current Hardware & Equipment Management System.

## Background

Currently the DCPI Tech Department is experiencing issues in equipment management such as:

1. Slow manual process of data input / encoding that leads to an average of 2 to 8 minutes of managing a single process in the system.
2. Confusing and repetitive manual process of data input / encoding because the admin must switch from 3 - 5 different excel files and sheets.
3. Inaccurate records of equipment assets that causes inconvenience to the admin when managing the system.

These issues include inconvenience for their equipment users, inaccurate / redundant records of existing and available equipment in the company.

Although MS excel is used as a means of storing and managing hardware and equipment assets, the client's processes are mostly paperwork i.e. letters, forms.

By using HEMS, it will reduce the current equipment management time by 20% and it will increase the accuracy and speed in terms of searching for equipment information by displaying all detail information (Equipment name, ID, quantity, etc.) specified as compared to searching one by one in Microsoft Excel.

## Business Opportunity

A Hardware and Equipment Management System is efficient and effective to use because it provides storage to hardware assets of the client wherein data stored are used as a historical data in terms of budget savings, asset maintenance, reorder of new assets, maximizing the effective lifespan of assets.

The Hardware and Equipment Management System differ from existing Hardware Management Systems because HEMS are designed specifically for the client wherein all modules that are included like equipment search / inquiry, adding new equipment, update equipment, archiving equipment, equipment for repair, equipment for disposal are primarily used in the maintenance of equipment assets of the client.

## Business Objectives and Success Criteria

Business objectives or goals are very significant in creating a project because it provides guidance and direction and it must be measurable and quantifiable given on the limited amount of time. The following are the general and specific objectives or goals of Hardware and Equipment Management System:

General Objective(s):

* To provide DCPI easier administration by reducing the current equipment management time, faster and accurate process.

Specific Objective(s):

* To provide DCPI the Hardware and Equipment Management System (HEMS) by reducing their current process time by 20%,

Success Criteria(s):

* The Technician admin can create, read, update, and archive equipment and accounts from HEMS.
* The Technician admin and other technicians can read emails sent by Management and Supervisors of DCPI.
* Process time reduced by 20% or more.
* Users more satisfied in using the upgraded system vs the old system.

## Customer or Market Needs

The Datascope Communications Philippines Inc. will gain benefits when using the Hardware and Equipment Management System. Fast process of data input, avoiding confusing and repetitive process of data input, and accurate records of equipment assets are some of the needs of the customer. These needs lead us to make a Hardware and Equipment Management System (HEMS).

By using HEMS, it can improve overall performance on the speed of processing and managing the hardware and equipment system it can reduce the process time by 20% and an increase in accuracy in the processes of managing the hardware and equipment assets by our customer.

## Business Risks

Whenever there are improvements to the processes and procedures of a department, there are factors that are needed to be considered during the transition period for the processes and procedures. The first factor is the user integration wherein new users will have difficulty in managing, navigating and working using the new system. User training are essential for users to be able to fully utilize the new system. Once the new system is fully controlled and managed by the users, then the benefits in using the system will be realized such as managing time reduction ease in managing equipment assets, increased accuracy in query to the items.

Proper planning and testing must be made before the implementation of the new system to prepare the system users to fully learn how to manage and use the system.

# Vision of the Solution

The Hardware and Equipment Management System will focus on the automation of the equipment management process by migrating their current system to an SQL Database, preferably open source software. The system will reduce the current equipment management time by 20%. Also, increase in accuracy and speed in terms of searching for equipment information by displaying complete equipment information (equipment, name, id, quantity, etc.) as compared to searching one by one in Microsoft Excel.

## Vision Statement

"As the Datascope Communications Phil's., Inc. moves toward the objective to be well known and leading provider of world-class quality service in the field of Business Process Outsourcing, DCPI Hardware and Equipment Management System is supporting their goal by making their Business Process Outsourcing service well known and trusted both locally and overseas by providing DCPI the Hardware and Equipment Management System that will enable the maintenance personnel to effectively manage the hardware and equipment assets of the company.”

## Major Features

Listed below are the following features of Hardware and Equipment Management System (HEMS):

* Supervisor can send troubleshooting service request to Technicians.
* Technicians receive the troubleshooting service request sent by Supervisors.
* 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.

## Assumptions and Dependencies

While developing the project, the project members assumed that the Datascope Communications Phils., Inc. (DCPI) employees already has an account that contains the employee information that the employees can use to access the proposed HEMS. Wherein department supervisors will use the system to report hardware and equipment problems, technicians will be able to receive the service request as soon as possible in order to quickly assess and provide troubleshooting and repairs, management can request equipment assets report such as budget reports for new equipment, equipment for repair.

# Scope and Limitations

SCOPE

* Improvement to the equipment management process of DCPI.

1. Automation of the current system by migrating to a MySQL Database.
2. Design for the infrastructure of the HEMS.
3. Reduce the current equipment management time by 20%
4. Increase in accuracy and speed in terms of searching for equipment information by displaying complete equipment information (equipment name, id, quantity, etc.)

LIMITATIONS

* Control and monitoring of system are limited to technicians only.
* The system can only be used for Hardware and Equipment assets only.

## Scope of Initial Release

The project has 3 user account privileges namely: Department supervisor, Technicians, Management.

Department supervisor has only access to reporting a hardware problem. Technicians has 3 levels wherein technician admins controls and manages the system, Technicians view the problem service request(s) of department supervisor(s) to quickly provide troubleshooting, technician purchaser manages the reorder point of new equipment’s. Management requests reports regarding list of assets that are active, spare, for repair, disposed, budget reports regarding active assets, disposed assets, current reorder equipment cost.

The Department supervisors will benefit in this project because of faster equipment problem service request to quickly resume the work / operations of the employee affect by the equipment problem.

The Technician department will greatly benefit in this project because of easier equipment assets management, faster problem service request response, easier reorder equipment process.

The Management will benefit in this project because of accurate and up to date equipment reports that is possible to be acquired immediately.

## Scope of Subsequent Releases

No subsequent releases will be released.

## Limitations and Exclusions

The system will be operable within the company only and will only focus on hardware and equipment assets only as categorized by the client particularly to computer and electronic parts only.

Hardware are categorized as the parts or components such as memory card, video card, hard disk drive, processors and such small parts.

# Business Context

The main issues in the project will be the account access privileges must be observed by the system at all times to prevent data leakage to unprivileged employees, correct data storage and

## Stakeholder Profiles

The stakeholders of DCPI Hardware and Equipment Management System are the DCPI

itself and their Technician Department who will implement the use of HEMS. The benefits that the Hems provide are:

* Budget savings.
* Efficient and effective lifetime of hardware and equipment assets.
* Easier to report equipment problems.
* Easier to manage hardware and equipment assets.
* Fast service to hardware and equipment assets.

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| --- | --- | --- | --- | --- |
| **Stakeholder** | **Major Value** | **Attitudes** | **Major Interest** | **Constraints** |
| DCPI | Cost Savings. | Increase in savings and efficiency. | Budget reports on expenses and operational cost of hardware and equipment assets. | Intranet |
| Department Supervisor | Ease in reporting equipment problems. | Accurate pre-assessment equipment problem | Report problems immediately so as to resume operational activity of employees | Intranet |
| Technician Department | Ease in managing Hardware and Equipment assets of DCPI, faster service response. | Fast and flexible hardware and equipment management and service. | Provide service and results immediately. | Intranet |
| Management | Request equipment reports anytime | Request reports anytime with ease and accuracy | Up to date equipment reports acquired. | Intranet |

## Project Priorities

|  |  |  |  |
| --- | --- | --- | --- |
| **Dimension** | **Driver (state objective)** | **Constraint (state limits)** | **Degree of Freedom (state allowable range)** |
| Schedule | release 1.0 to be available by the beginning of February 2017,  release 2.0 to be available by the march 2017,  release 3.0 to be available by the beginning of April 2017. | Time constraint | 80 - 100% of the DCPI Hardware and Equipment Management System function must be done |
| Features | The main function must be properly working |  | 70-80% of high priority features must be included in release 1.0 |
| Quality | Provides DCPI Technician Department easier management of HEMS | Bugs and errors are expected during release 1.0 | 90-95% of user acceptance tests must pass for release 1.0, 95-98% for release 1.1 |
| Staff |  | maximum team size is 3 developers + 4 testers |  |
| Cost | The expenses must not exceed the maximum budget | Maximum budget | budget overrun up to 15% acceptable without executive review |

## Operating Environment

The system will be built using HTMLand PHP.

To transfer or connect the data, Apache Web Server through 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.