



## Computerization of Hospital's Information System

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**Abstract**— *In today's modern age of computers not all are able to enjoy its capabilities. Some of the hospitals in the country are still using the manual method or paper based for their services. For a department that has a limited staff one or two, accomplishing their tasks like making reports to the management takes more than the required time. In this sense, computerization for the department that has a limited staff might be the solution.*

**Keywords**— *Computer Hardware Specifications, Computer Units, IP Address, IT assets, IT staff, MAC Address;*

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### I. INTRODUCTION

In today's modern age where computer has become a way of life, it is evident that a majority of the country's institutions still do not adapt the high technology. Particularly in most medical clinic facilities, daily clinic transactions are still done on paper. It is known that modern hospitals are now operating at great pace striving to serve as many patients as possible with the best of their abilities.

In this research, it hopes to develop a system that will minimize all paper works and manual record keeping, therefore allowing users to keep tracks of their computer units – a system that is fully automated, user-friendly, time effective and efficient.

People use often technology rather than manual process. In the site of this research, it emphasizes the need for an automated system that will be used to enlist the status and errors of a computer and other information.

Normally, there is only one IT staff per Hospital to this country. The IT staff job description would be maintaining and monitoring of computers performance, its network connection, and assets. The following statements were formulated based on the problems observed:

1. Tracking difficulty, a manual system takes time to record and monitor hospital's computer old and new units.
2. Workload efficiency, it will take a longer time to process data with a manual system.
3. No automated database, manual system may lead to loss of data.

The goal of the research is to create a system's concept for the IT staff and Hospital for tracking its computer units. The automated monitoring system concept is to assist and lessen the hassle for the old way that the IT staff used to do. The IT staff can view and monitor the computer units entered in their inventory.

### II. SYSTEM ANALYSIS

Most hospitals in the Philippines current inventory process is by the use of manual writing of the items into forms and record logbooks. The IT staff checks and records the data into those logbooks. The researchers concept have almost the same process and flow as the old but it lessens manual process and saves time. It also lessens the use of papers and forms for the storing of information.

The researchers concept is to provide a database for the computer's information of the computer units. In other employee-related data, user's computer information was included such as the username, department, unit type, IP address, MAC address, computer hardware specifications, and the problem of the unit.

#### A. Related Studies

1. A compilation of thesis related documents by Lopez (2005), Cayabyab (2007), Conde (2007), Garcia (2002), Saayo et. al (2008), Valina et.al (2009), Soria (2006), there were problems and risks identified using a manual system that affects the efficiency and effectivity of the processes in different institutions. A study by Lopez (2005), proposed a registration system that could help and provide efficient and reliable services to the students, enrollment staff and management. According to Cayabyab (2007), there were problems identified in the system of Dagupan City National High School (DCNHS) that affects the efficiency of the enrollment system of students like security of the students records were found to be at high risk. A Network-based Enrollment System of Paete National High School by Conde (2007) discussed the tedious manual process of enrollment system. LSPC Enrollment System by Garcia (2002) was developed to ease the retrieval student information during enrollment period. A Network based automated Enrollment and grading system for Morong National High School was

developed by Saayo et. al (2008) due to the increasing population of the school to automate the manual process of enrollment. The Network-based student Permanent Record keeping and Enrollment System of Balian National High School by .Valina et.al (2009) is a system made to lessen the time and effort exerted by both student and school employees. The Network-based Computerized inventory System by Soria (2006), was created for the supply office of the LSPC main campus. Thus, advancement of technology involves the improvement of machines and devices used to cope up with the needs of the institutions and it's clientele.

2. The Sales & Inventory Monitoring Systems by Audra Bianca, Demand Media. Data Collection for Decision-Making helps a the management to make strategic decision on business on purchasing raw material, production schedules, market price, and logistics. Product level monitoring was included. A production may slow down once their sales did not meet the expected sales forecast. Automated sales and inventory monitoring gave the company the advantage by linking different automated processes within the business supply chain. Like the automation of ordering process for customers and the production scheduling, adjusting manufacturing based on the updated inventory levels, these makes a company more flexible, capable of deciding to satisfy customer needs. The management could make rapid decisions to increase revenues.
3. Hardware inventory system includes software monitoring. Tracking the working hardware devices which the system can comprehend it can likewise give extra data that the hardware inventory system may not see however it will give a hint a hardware detection yet obscure brand or known brand yet unusable. The devices that cannot be recognized by the system may not be installed properly or it might be physically installed however it may not be distinguished by the PC framework itself or the device might be physically broken. There is a necessity to have a hardware inventory system installed on the computer. The hardware inventory system does not only determine or detect the parts of the computer it also identifies the reason behind why some specific parts of the computer does not work.

### III. SUMMARY

Hospital Computer Inventory System is a system software application that will manage employee's computer devices, connectivity to gather their IP addresses, and MAC addresses of the computer. The Hardware Computer Inventory System will be the new system for a hospital, the hospital IT administrator will regularly operate the system for maintenance. The goal of the research was to minimize inventory works by the hospital IT administrator and employees in managing people's computer information. This will be more efficient, less time, can minimize human error, low cost, and secured.

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