HEALTH CARE DOCUMENT MANAGEMENT FOR SECURITY SYSTEM OF EGAT

Kemachart Kemavuthanon

School of Information Technology, Mae Fah Luang University, Thasud, Chiang Rai 57100, Thailand

e-mail: kemachart.kem@mfu.ac.th

Abstract

In old Document Management Solution for Industry of EGAT has done manually with many processes by many departments. That made complex and detailed data cause difficulties in the classification of the information and effect to waste time to travel or send documents from every department. Moreover information kept by manual process could not be traceability and analyze. Health Care Management for security will be developed to help reducing the time to travel or send documents, consumption and costs from manually process.

Keywords: Document Management System, EGAT, Health Care Management

Introduction

Industrial Hygiene and Occupational Health Management Information System have many problems with document and Workflow Management process because it has been done manually by filling a paper forms. That makes system slow down to operation due to several reasons. And all documents have impacted the risk to the employees when they are working in power plants. Moreover, there are amount of power plants, which makes the operation cannot be completed at one time. Effective document management is very important for an organization because it facilitates management of data that leads to safety and quality of life for the employees. Normally, organizations assign many employees to collect data which sometimes have to travel in several power plants; this step is time-consuming. Delays happen in the performance evaluations for correction and maintenance delays. In figure 1
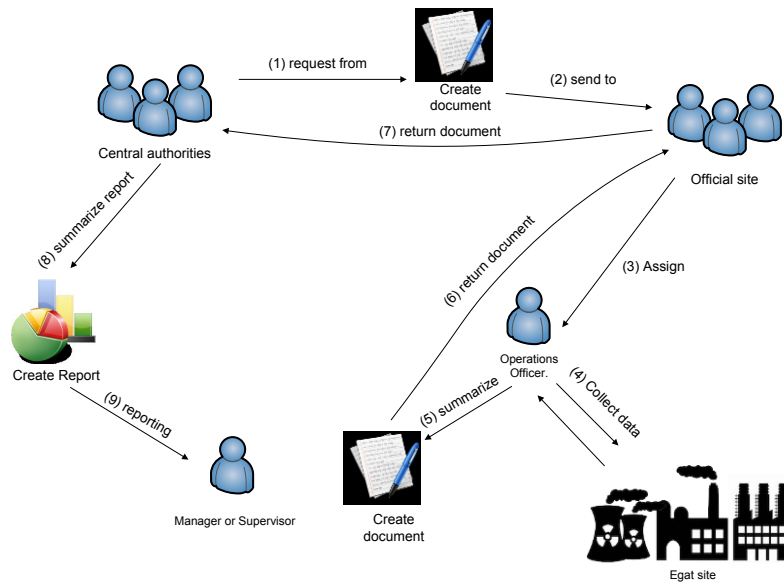
Figure 1 Old Document Management Processes

From figure 1, there are survey processes of Health Care document Management which are very difficult to complete. It will start process from (1) centralized create request from and (2) send it to branch of the official. (3) After that branch officer will command operation officer to (4) collect information at the power plants (5), then summary the result in document, and (6) return document to official (7) Branch officer summarize information and send it to centralized for (8) summarized all power plants to the central executive. Due to problems, this proposed system will be designed and developed for reducing the operation cost, the speed of execution. Moreover, this system will provide reporting function.

Methodology

The researcher selects System Development Life Cycle (SDLC) methodology to develop for all modules. From studying existing process and analyzing problem domain, lack of collaborative and consuming a lot of resources (human and material) are some significant problems. Beside, this proposed system will be test in parallel between old system and new system because this process will help to avoid the impacts on the organization or have minimal impact. Web service technology is selected to use in design and develop solution to fit the user requirement.

System Architecture

From the existing system, researcher found that problem of process came from travelling time or sending documents because system create and send all documents manually to every related department. Some staff from different department has to wait for documents. Researcher team has identified all users in the system to be hierarchy for defining responsibilities and menu for each user's work and setting scope of work for each user. For the Executive level, this is about analyzed plans and reports. Central authority level distributes the work and provides the summary data to office branches. Branch official level creates document and manages work order for the Central authorities to collect data in a power plant. Operation officer level is staff performance to collect the information in the power plant. In figure 2.
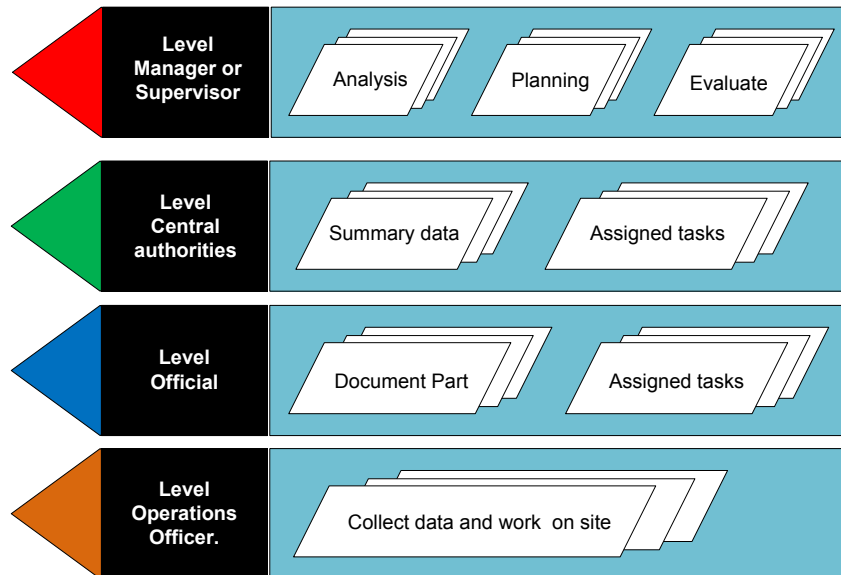
Figure 2 level layers in the process

Due to requirement and different location of work places, the researcher has selected to develop system which is web service technology for supporting communication and work among different locations.

System design is a Client - Server to use Web browser to be interface. System has main server system to manage data transmission and store information in a database. All transition working on the Internet at the main server for create document, send and receive data by online.

In this system, staff can access the system simultaneously and parallel to each other and they do not have to wait for the submission or wait for the work of one of the parties. This can reduce the time to write down the document and reduce the time to use of document forwarding. Manager and Supervisor can review the report and monitoring by the internet or by their mobile. In the system design, Researcher analysis processes the report of the work manually. It should be analysis by server and a summary reporting for executive can be analyzed and plan. As in figure 3.
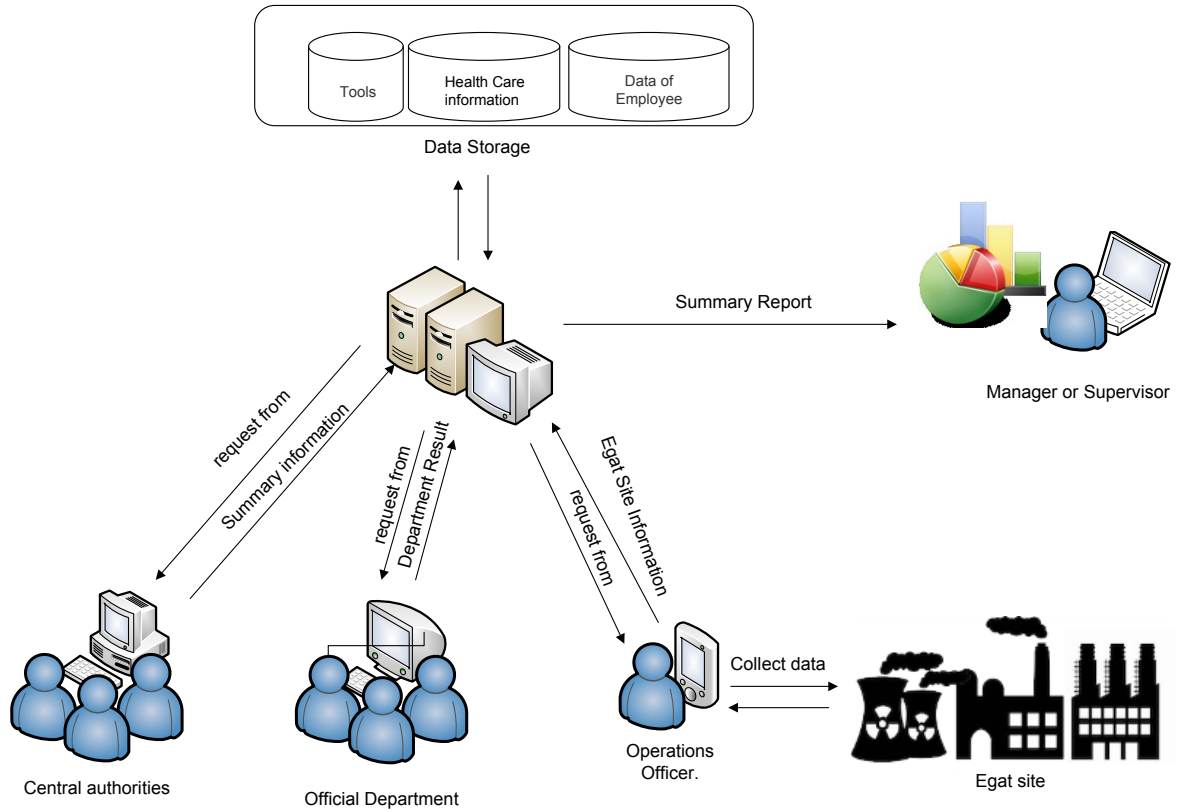
Figure 3 Health Care document Management system

However, All EGAT departments are not in same location. Therefore, it is difficult to link information and coordinate with each other due to network connection problem and own database information. Researcher proposes to work in a semi-private cloud and semi stand-alone system that information from main Server is distributed to each department. Therefore, EGAT officer can manage on their own database. Main server should have API Application programming interface (API) to transfer data between the main server and server departments in updating information; this will help to reduce the problem from network because server does not have to update this information at any time. For new information main server will synchronize that information automatically. In Figure 4
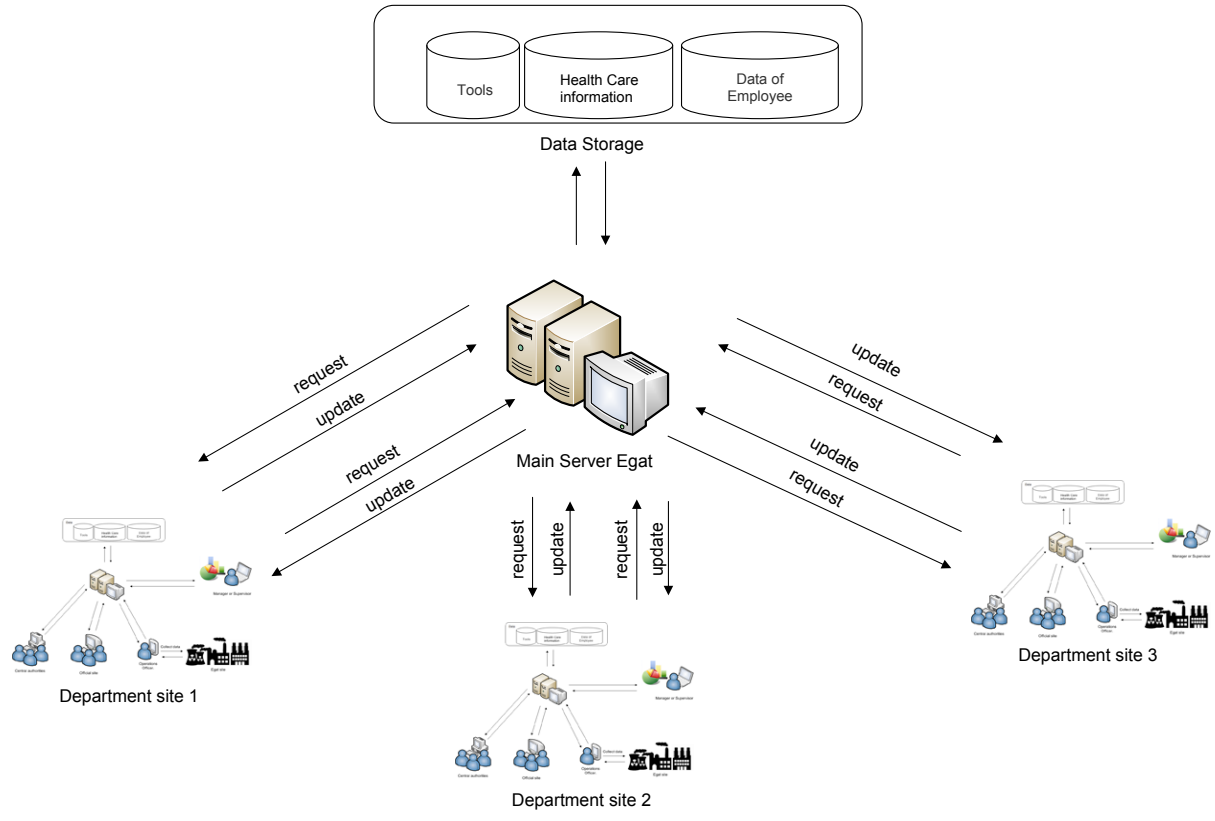
Figure 4 semi-private cloud and semi stand-alone system

Designation of Deployment Approach

For information and corporate environments in EGAT, it makes that server the majority of Tomcat and all EGAT Applications are mostly implemented by Java and JSP. Therefore, researcher developing, Java Beans in manage transition and the connection between Interface and database. In the Main server and data transmission among servers, Researcher chooses XML to transfer data as shown in Figure 5.
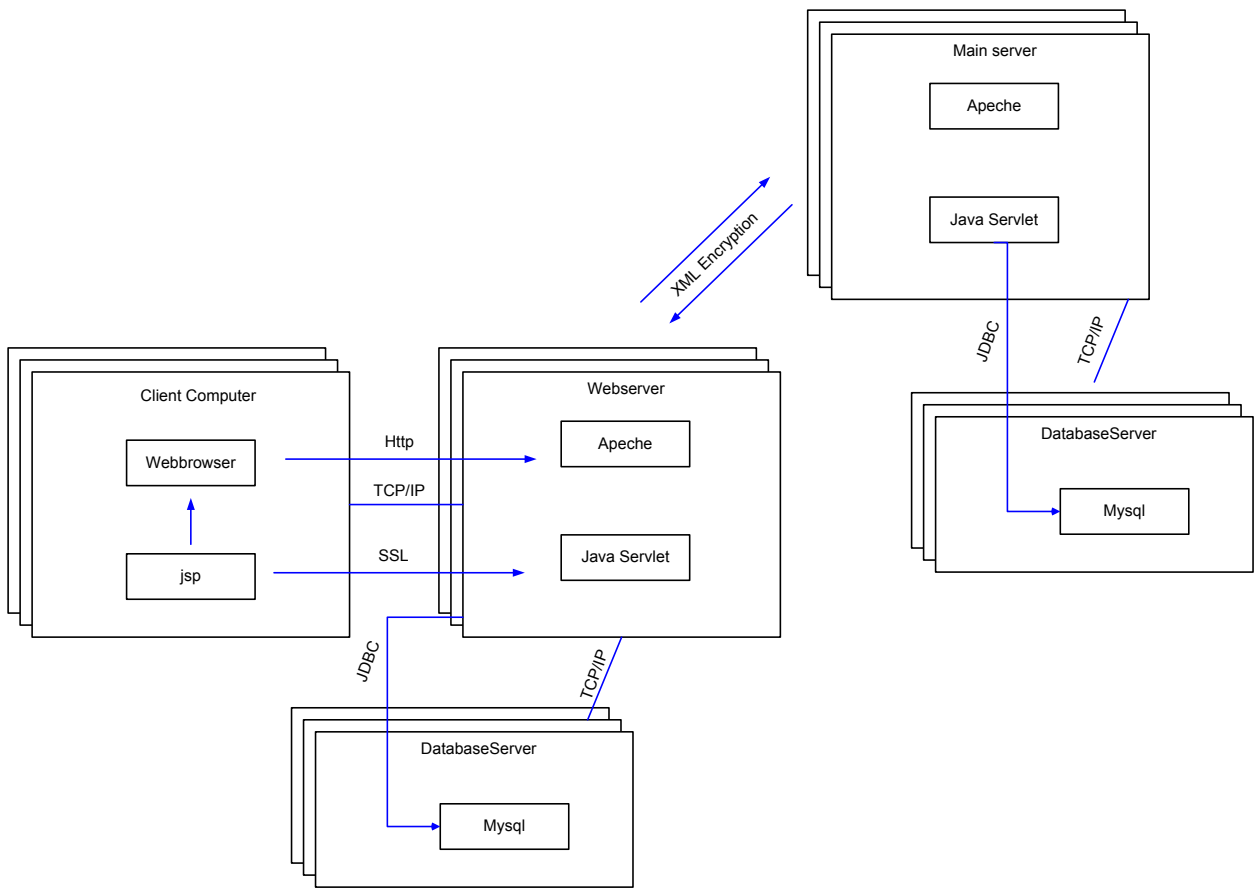
Figure 5 Designation of Deployment

Conclusions

There are many problems in term of managing or checking status document because the existing Health Care Document Management systems is paper based and have been used for longtime in EGAT organization. However, the implementation of the new Health Care Document Management for Security system has made a lot of change and effect in the organization, especially in the improvement of processing and the way employee operate support more collaborative and tractability of their tasks. Which is currently, we are in the process of design and analysis of the risk of the development. As mentioned problems, the proposed system will be developed as a web application for managing document and sharing information report to the center this system will provide data for supporting work and reduce the cost and make it easier to work.

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