Implementing SAAS Cloud Computing in Health Care Sector

Name

University

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Literature Review

In today's technological trend, every organization is switching to cloud computing rather than the traditional on-premise computing. Cloud computing has moved from more just storage to other variety of services. Organizations have deviated from the use of cloud as a common term and instead have decided to use the other services provided by cloud. Having an implementation of a cloud solution needs a decision based on understanding the different solutions (Bepko, Moore, & Coleman, 2009). Cloud solutions are increasingly becoming the major trend in organizations' business processes.

Cloud computing has different categories of services which are Software as a Service (SaaS), infrastructure as a Service (IaaS) and platform as a service (PaaS) (Farley, 1971). The basis of this project is to implement the SaaS into a health sector organization. While implementing SaaS, a software solution is sourced from a company that has hosted the application on cloud and the users need to make periodic subscriptions. Licensing is also user friendly as it is pay as you service. This approach is cost effective to even start up organizations as they only need to pay for what they are using. Explaining to the management about SaaS would be the best start point in pushing this project to implementation stage.

While using SaaS, all the subscribers access the license and the product online. The management of the application is centralized at a remote location by a software development company. Safaricom is among the companies that have implemented SaaS.

The advantage of SaaS is the way it lowers the cost that could be incurred in purchasing the infrastructure. The infrastructure is catered for by the supplier company.

Another advantage of SaaS is that there is a possibility of integration between different applications using Application programming Interface (APIs) to access data from different ends (Gangadharan, 2017). This is suitable for organizations which have their own infrastructure but would want to deploy a SaaS solution for additional automations or functionalities. Massive number of organizations is deploying cloud solutions in their information systems environment as a way of improving productivity and cutting costs. The health sector could use the SaaS as a way of automating their services in different areas of operations. SaaS applications are effective and 100% efficient as they provide 99.9% uptime. Having an on-premise solution could be problematic during applying of updates for an organization that has not well defined bandwidth but with SaaS, it is possible because all the updates runs at the service offering centers with no need of manual implication.

SaaS also offers no implementation and setup costs. This is effective for organizations that are not ready to spend much on support and implementation costs. Another dimension of cost cutting is having a solution that has no extra charges on p\art of the program or application that is not being used. Also the dilemma of thinking around the fitting of an application in the organization's business process is way gone since it is possible to automate and customize an application to suite any business requirement. The system in SaaS is access the application at convenience anywhere any time by the users. This approach has been beneficial to organizations that needs to improve on the

application access and redundancy (Yeluri & Castro-Leon, n.d.). This project will be beneficial to the health sector in different ways based on the intended objectives.

Proposal

The current problem is to find a solution of the health sector being able to make use of It infrastructure that is not expensive and reliable. The manual process of operation has to be replaced by the information system solution that is not prone to bugs and is secure to the users. Discussing on the cost saving approach of the SaaS with different stakeholders will aid in efficiency and profitability of the health sector. This project will take the Action research approach based on four iterations.

Iteration 1: Problem identification

Although it is obvious that the health sector needs to implement this solution, it would be had to deliver the objectives if we are working on a problem unknown. The final iteration scheduled for 1 week will involve meetings with the stakeholders of the sector to understand the exact problem. Having the problem at hand will help in coming up with a strategy to improve on the productivity and planning on the implementation of the project.

Iteration 2: Requirements analysis and data analysis

During the next iteration, there will be need to assess the infrastructure and determine the best equipment needed for the implementation of this project. Before gathering the required resources and tools for the project, it is a good practice to assess

the existing infrastructure to come up with the right requirements. The requirements will be separated between functional and non functional requirements for the purpose of understanding the needs to delivered by when. The process will involve learning the system and the infrastructure. A budget will then be issued based on the organization's level of capability.

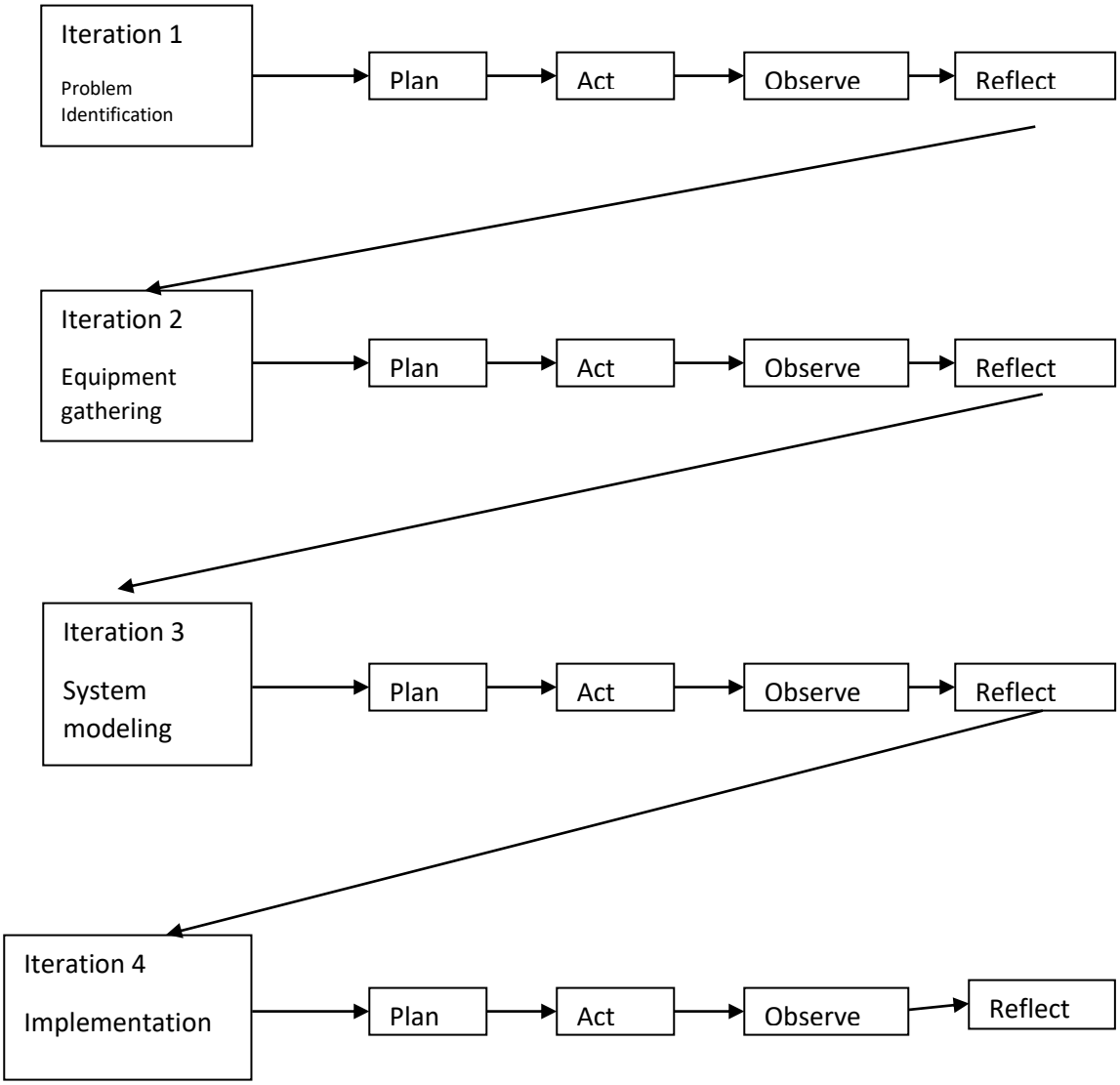
Iteration 3: System modeling and data Collection

The next stage will be to model the expected system using the business proceed Modeling (BPM) tools. This will be a process oriented system and will require mapping of all the requirements to the system putting in mind the functional objective of the project. While modeling the conceptual system, it will be a good practice to have data collected from customers to know the main requirements of the forthcoming system. This data would be collected via questionnaires, feedback forms and observation of the current system. Having the results analyzed and compared will help in mapping all the requirements to the SaaS.

Iteration 4: Implementation

The last iteration entails implementing the system and inputting of live data into the SaaS application. This will involve different activities spearheaded by the testing with live data on the pilot. A portion of users will be deployed to confirm the functionality of the application. The deliverable of this stage will be making sure that the system implements all the functional requirements and objectives laid down from the initial stage. Having the requirements mapped will help so much in delivering the project to the management. The application has to be rolled out in phases due to the need to confirm

that all the requirements are being met. The end of the process will be implementation of the SaaS and automating business processes in an hospital organization.



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