

Change Management Approach In Enterprise Architecture Planning (EAP)

Andy Prasetyo Utomo and Supriyono

Department Of Information System

Muria Kudus University

Kudus, Indonesia

Email : andyutomo@gmail.com

Email : supriyono.si.umk@gmail.com

Abstract—Enterprise Architecture Planning (EAP) is one of the methods used to build an information architecture. The most important thing in the EAP is a 'Planning'. EAP consists of four layers. Implementation plan on the EAP layer is the most important layer that aims to formulate and prepare a plan for implementation. Without the implementation plan will be architectural usually end up with only provide benefits that are not too meaningful to the business units. But unfortunately in the EAP layer implementation plan only highlight the technical factors and not too much to consider non-technical factors are also very important. Therefore need the additional consideration of non-technical factors using the concept of Change Management, which is a series of processes used to ensure that the significant changes made in a controlled and systematic.

Keywords : component; EAP, implementation plan, change management.

I. INTRODUCTION

Enterprise architecture is a rigorous description of the corporate structure, decomposition into subsystems, the relationship between the subsystems, relations with the external environment, the use of terminology and guiding principles for the design and evolution of a company [3] [5]. One purpose of the application of enterprise architecture is to create harmony between business and information technology for the needs of the organization. The application of enterprise architecture is inseparable from how an organization to plan and design the enterprise architecture.

In building an enterprise architecture must first determine the scope, extent and content of a using an enterprise architecture framework. Framework is a logical structure that can be extended to classify and organize a set of concepts, methods, technologies and changes to a design or manufacturing processes [8].

One approach that includes all components of enterprise architecture is the Enterprise Architecture Planning (EAP). EAP is one of the methods used to build an information architecture. In the EAP consists of four layers as shown in Figure 1

EAP is a method of data quality planning approach oriented on business needs and how the implementation of the architecture is done in such a way in an attempt to support the

rotation of the wheels of business and the achievement of the content and organization of information systems [7].

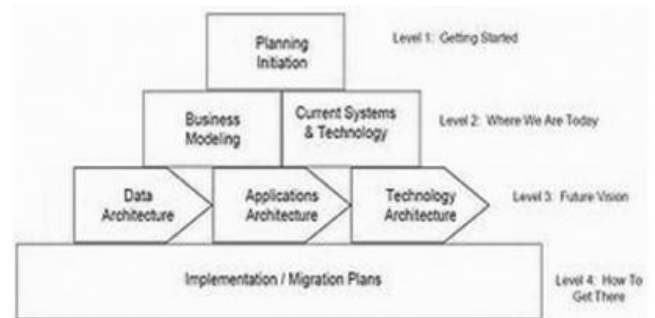


FIGURE 1 : 4 LAYER IN EAP

Basically the EAP is not a business designing and architecture, but defining the business requirements and architecture. In EAP, the architecture describes the data, applications and technology needed to support the organization's business. For this last, Steven H Spewak stated that the use of the term architecture consists of a data architecture, application architecture, and technology architecture. The architecture here is intended as a blueprint, drawing, or model [7].

According Spewak the most important thing in the EAP is 'Planning'. In general, the architecture defines what is needed and support planning when defining the architecture will be implemented. Said Spewak architecture without a plan, no matter how comprehensive or well technically, it usually ends in "dusty shelf", never reached the implementation [7]. From the picture above and also based on the opinions expressed by the originators that in EAP most important thing is the implementation plan.

In this paper the author will try to explore more about the EAP, in particular the fourth layer of the EAP implementation plan which is the most important stage in the EAP and the key to whether the data architecture, applications and technologies that have been made in the previous layer, can later be applied to what no. The author will try to compare a step - a step in the EAP layer implementation plan with the conditions and problems that often occur in the real world.

II. DESCRIPTION OF THE PROBLEM

Layer on the EAP implementation plan aims to formulate and prepare a plan for implementation. Without a plan of implementation architecture will usually end up with only the benefit which is not very meaningful to the business units. In this layer there is a four-step implementation plan [7], namely:

- 1) *Ordering Application - The purpose of this step is to set priorities and sequencing for the formulation*
- 2) *Estimating effort, resources and produce a schedule - The purpose of this step is to estimate the effort required for implementation, determine the resources required and produce a schedule for implementing the architecture.*
- 3) *Estimating the costs and benefits of the plan created - purpose of this step is to estimate the benefits and economic benefits as well as the rate of return from investment, which is the cornerstone of the organization in making the decision to accept or reject the proposed plan.*
- 4) *Determining factor - the key success factors and make recommendations - The purpose of this step is to apply high-quality data sharing environment in which people have access to necessary data will be involved in the change by identifying the factors - the key factors that influence and then make a recommendation. First, confirm that you have the correct template for your paper size. This template has been tailored for output on the US-letter paper size. If you are using A4-sized paper, please close this template and download the file for A4 paper format called "CPS_A4_format".*

Of the four stages according to the authors there is something important to be forgotten. Because the end goal is the implementation plan for the future of architecture that has been planned can be executed and implemented properly, there should be the addition of several measures that relate to the strategy of changing organizational conditions. Because according to one study on 300 electronics companies in the USA, 63% had defaulted in making the complex organizational change programs that ultimately do not benefit or advantage which means the changes made [6]. Failure was not caused by technical factors but rather is caused by a deficiency in terms of (1) project planning, (2) management of change and (3) to mobilize people. If you see that there are four stages in the lining of the EAP implementation plan, the last two causes of failure: the lack of change management and mobilization of people have not been so visible for discussion. Although mentioned in step 4, relating to the determination of the keys to success and make the environment so that people - people feel involved in the change, but this is still less to be able to overcome the problems that often lead to failure in the implementation of change.

From the description in the previous stage can be concluded that, although the implementation plan in the EAP

layer is a layer that is considered important, but the steps - steps that are inside still felt less to accommodate the existence of a complete implementation plan taking into account various aspects. Steps - the steps involved in the implementation plan EAP layer further looked into the technical factors and less attention to non-technical factors that usually even the main cause of failure in implementing the changes. This is one of the shortcomings and problems that exist in a step - a step that existed at the EAP layer implementation plan. In the next section the author will try to deliver the proposed solution to cover or reduce existing deficiencies in the lining of the EAP implementation plan.

III. PROPOSED SOLUTION

The solution offered by the authors to overcome the problems that have been described in previous sections is to add the approach to the management of change in the lining of the EAP implementation plan. Change Management is a set of processes used to ensure that the significant changes made in a controlled and systematic way [1]. One goal of change management is to align people and culture with strategic change in organizations, to overcome resistance to change in order to improve engagement and achievement of organizational goals to achieve effective transformation.

There are several models available for understanding, a frame of mind and assist in leading the change. One of the leading thinkers in change management is the John P. Kotter from Harvard Business School. John P. Kotter suggests the eight-stage process to create change [4] [2]. The eighth process is

A. *Instilling the importance of a change*

This stage aims to instill the need for action to change everyone. By the way how to convey the view that change is necessary, so that everyone can understand the vision of change and adopt

B. *Formed a special team to determine the direction of change*

The purpose of this stage is to develop a team of people who have the desire to improve existing conditions, people who sepandangan with the mission changes, and proactive people who have great ideas

C. *Develop vision and strategy.*

The purpose of this stage is to describe the transformation of the organization's vision when changes are made, its ultimate goal is to determine what will be achieved and what strategies will be applied.

D. *Communicating the change vision*

The purpose of this stage is to influence other elements in the organization about the changes that will be done, so they also change in line with the objectives and plans change. In this communication process, can take advantage of every available media to touch the masses of internal and external organizations such as Mading, bulletins, leaflets, posters, baligo and other media to convey the vision of change them.

E. *Implement changes in overall*

This is the stage of implementation of the vision and strategies that have been prepared. There are three activities in the implementation process, namely (1) eliminate the obstacles that exist, (2) change the system or structure in accordance with the vision, (3) motivated to take risks and do new activities.

F. *Determine short-term targets*

The purpose of this stage is to determine short-term targets, 1, 2, 3, or 6 months. Members will feel eager to make changes little by little when the target is reached

G. *Perfecting the achievement of targets and make the changes more*

After short-term targets achieved, at this stage the aim is to remind members of the team so as not to fall asleep with a temporary success has been obtained. Inadvertence will reflect badly on the implementation of the change process, especially if they feel has reached the target when the actual target was not perfect. At this stage steps - steps taken were (1) achieve more change, (2) seek additional person, (3) improve the top-level management, (4) improve the management of lower levels, and (5) reduction of unnecessary interdependencies.

H. *Confirming the new approach in the organization*

At this stage the aim is to consolidate activities into the organizational culture change. Although it would be difficult to change organizational culture, but there are some tricks that can be done to replace the old culture with something new with the steps - steps as follows: (1) do this at the last stage of change, (2) the need for meaningful success, (3) the need for socialization, (4) sometimes requires sacrifice, (4) select a replacement leaders are aligned with the new concept of organization.

Eighth stage to make the above changes are related to one another. The fourth role is to solve the initial stage of the status quo in the organization. The fourth stage is the final stages of implementation of planned changes. Therefore, the early stages is the foundation for the next stage. Perfection implementation of earlier stages, will provide a good foundation for achieving the next stage.

The eighth stage is when inserted into the EAP layer implementation plan will produce an implementation plan with a step - a step that is more complete, a combination of technical factors in the EAP with non-technical approach to the eight stages of Kotter's change management process.

The proposal author regarding deficiencies and problems that exist in the lining of the EAP implementation plan is to do with adding one more step in the lining of the EAP implementation plan with the name of the implementation strategy. Step inside the implementation of the strategy will contain the activity - the activity as follows:

1) *Socialization plan's vision and the importance of change*

In this activity would combine the two stage process in which Kotter's eight stages of the process of instilling the

importance of a change and communicating the change vision. In these activities will be organized strategies and step - step in disseminating the vision and the importance of change. The purpose of this activity is to convince and bring all people and stakeholders into a single vision and views on the changes to be made.

2) *Develop a strategy for implementation of the change vision*

This activity is a combination of the two stage process in which Kotter's eight stage process to develop strategies and implement changes as a whole. In this activity will attempt to translate vision into strategy will be achieved by attempting to identify the barriers - barriers that exist and develop strategies to overcome these obstacles.

3) *Develop schemes of organizational culture change*

This activity is a combination of the three stage process in which Kotter's eight stages of the process of determining the short-term targets, enhance the achievement of the target and make more changes as well as confirming the new approach in the organization. In these activities will be organized short-term target which is a step - a step that will pass and then develop strategies to make changes in accordance with the vision of organizational culture change that will be done.

Of measures and activities proposed by Kotter's eight stage process just steps form a special team to determine the direction of change are not included in the proposal. This is because the move was already there in one step in a transition stage to implementation on the EAP.

Of the additional step implementation plan was expected EAP layer does not only contain the consideration of factors - technical faktor alone but also considers factors - non-technical factors in preparing an implementation plan so that good results are expected from implementation of the architecture will be more obvious to be realized

IV. CONCLUSION

Some things can be concluded the discussion on the need for change management approaches in EAP are:

- 1) *One of the important layers in the EAP are the implementation plan.*
- 2) *In the EAP layer implementation plan contains only a step technical architecture of the application has been made.*
- 3) *The need for the addition of a change management approach, the steps involved in the lining of the EAP implementation plan to increase the consideration of non-technical aspects.*
- 4) *Proposed addition of a step in the lining of the EAP implementation plan is based on 8 stages of the process changes proposed by Kotter*
- 5) *The proposal consists of adding one step, "implementation strategy" consisting of three activities: (1) socialization plan's vision and the importance of change, (2) develop strategies for implementation of the*

change vision, (3) develop the organizational culture change scheme.

- 6) *The third proposed activity is a combination of several measures that exist in Kotter's change model.*

REFERENCES

- [1] A Guide for University Staff, "Leading Change, Transition & Transformation", The University of Adelaide Australia, 2009.
- [2] Dita, Astrid., Habibie, Irfan., Natari, Rifani Bhakti., "Menjadi Pemimpin Masa Depan dimulai Dari Kampus", Direktorat Pendidikan Institut Teknologi Bandung, 2009.
- [3] Giachetti, R.E., "Design of Enterprise Systems, Theory, Architecture, and Methods", CRC Press, Boca Raton, FL, 2010.
- [4] Kotter, J. P., 1996, Leading Change, Boston: Harvard Business School Press.
- [5] MIT Center for Information Systems Research, Peter Weill, Director, as presented at the Sixth e-Business Conference, Barcelona Spain, 27 March 2007
- [6] Song, Xiongwei., "Why Do Change Management Strategies Fail?, Illustrations with case studies", Journal of Cambridge Studies, Vol 4. No. 1 Mar 2009
- [7] Spewak, Steven. H., "Enterprise Architecture Planning (Developing a Blueprint for Data, Application and Technology)", John Wiley & Sons, Inc, 1992. G. Eason, B. Noble, and I. N. Sneddon, "On certain integrals of Lipschitz-Hankel type involving products of Bessel functions," Phil. Trans. Roy. Soc. London, vol. A247, pp. 529–551, April 1955. (*references*)