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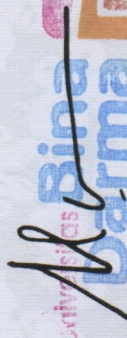## INTERNATIONAL CONFERENCE ON INFORMATION TECHNOLOGY & ENGINEERING APPLICATION

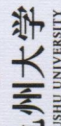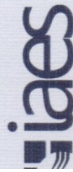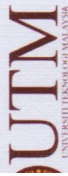This is to certify that

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ENTERPRISE ARCHITECTURE PLANNING DESIGN OF INFORMATION SYSTEMS TECHNOLOGY AT PT. KREASI UTAMA MANDIRI USING THE ZACHMAN FRAMEWORK.

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Abstract. This research aims to design Enterprise Architecture Planning information technology systems in PT. Kreasi Utama Mandiri to petrify company business processes in support of the vision and mission of the company and can provide answers to permasalahn at PT. Kreasi Utama Mandiri The data used in this research using primary and secondary data obtained from the results of observations, interviews, literature and document using qualitative data analysis techniques. The method used in this penlitian is Methodologies Enterprise Architecture Planning (EAP) Using Zachman Architecture Framework. that will be examined is the data architecture, application and technology resulting in Enterprise Architecture Planning (EAP) using Zachman Framework.

Keywords: EAP, Zachman Framework

1 Introduction

Welcoming the free market that will apply in ASEAN, the information system technology plays an important role in helping the obtained information up to date, in addition to the technology information system also plays an important role in business strategy and cost savings as well as improving the quality of products produced. PT. Kreasi Utama Mandiri which is the official distributor of Avira antivirus products have implemented the use of technology in the information system architecture of the data, process / application, and technology / network. but the use of information systems technology has not yet been integrated into a centralized system that often goes wrong or lack validan data in a business process company, this is when on leave of course will affect consumer confidence and the performance of the company, so it takes a plan of preparation of information systems technology which will help align business processes that can be run effectively and efficiently. one way in improving business processes that run is to use Enterprize Architecture.

By looking at existing conditions, then the research conducted will make the design of the enterprise architecture information system technology as a strategic plan for the

development of an information system that includes data architecture, application architecture and technology architecture. Enterprise architecture is a set of principles, methods, and models that are plausible used to design and realize an enterprise organizational structure, business processes, information systems and infrastructure (Surendro, 2007). Enterprise architecture is of significant importance to the organization because one result is the realization of alignment between information technology and business needs. Adaptive enterprise architecture can support the organization / company in the delivery of information and deliver effective and timely, will also support enhanced functionality and business organizations

The usual method for modeling information systems technology architecture is the EAP (Enterprise Architecture Planning), wherein the method is a method that is used as a planning approach to data quality by referring to the business needs of companies and organizations. In the EAP will be described on the data architecture, application architecture and technology architecture. The steps in the EAP provides practical guidance in making the architecture of two rows and three columns first Zachman framework (Khairina et al., 2012). Zachman framework is a framework for mapping the relationship between the components of the enterprise architecture level components of concern to interested parties with Enterprise Architecture. Zachman Framework see a system of six main aspects, namely Data, Function, Network, People, Motivation, and Time as well as six different perspective, namely Planner, Owner, Designer, Contractor, subcontractor, and Function in Enterprise (Zachman, 1987). then the different aspects and perspectives will be drawn into a 6x6 matrix in which columns to describe aspects while rows depict perspective.

With some of the reasons that the author has described the state that the need for a design that can be used as guidelines to build a design Enterprise Architecture Planning that can be petrified berjalanya business processes the company in support of the vision and mission of the company and can provide answers to permasalahn at PT. Mandiri Utama creations. Therefore, on the basis of the description taken a study entitled "Enterprise Architecture Planning Design of Information Systems Technology at PT. Kreasi Utama Mandiri using the Zachman Framework".

1.1 Identification of problems

Follow up the matter contained in the background, then the identification of the issues raised in this study are:
1. The integration of applications supporting business processes in PT.Kreasi Utama Mandiri.
2. Investigate the infrastructure that supports the business process at PT.Kreasi Utama Mandiri.
3. Knowing the needs of information technology systems in PT.Kreasi Utama Mandiri in order to support the vision and mission of the company.

1.2 Formulation Problems

Based on the above, the authors formulate the problem in this research is "How to

build Enterprise Arcitecture Planning information technology systems in PT. Kreasi Utama Mandiri so easy to understand and support the business peroses sehingan improve the effectiveness and performance of the company?".

1.3 Research Objectives

This research aims to design Enterprise Architecture Planning information technology systems in PT. Kreasi Utama Mandiri.

1.4 Benefits Research

The benefits of this research are taken by the author in this study are:
1. Can provide design Enterpriese Arcitecture Planning at PT. Kreasi Utama Mandiri.
2. Can support the company's business processes so as to improve the effectiveness and performance of the company and support the realization of the vision and mission of the company.

1.5 Scope of the Study

In this thesis, the author will limit the scope of the research focuses on issues to be discussed, using the methodology of Enterprise Architecture Planning (EAP) by clicking using Zachman Framework as a tool for the documentation process with the object of research PT. Kreasi Utama Mandiri.

2 Zachman Framework

In the picture above is explained that the Zachman Framework is a 6 × 6 matrix that represents the intersection of two classification scheme two-dimensional system architecture. In the first dimension, Zachman described it as a line consisting of six perspectives:

a. The Planner Perspective (Scope Context): List the scope of the business element explanation recognized by strategists as a theorist.

b. The Owner Perspective (Business Concept): Model semantic business linkages between components of a business defined by the chief executive as the owner.

c. The Designer Perspective (System Logic): a more detailed logic models that contain the system requirements and design constraints represented by the architects as a designer.

d. The Builder Perspective (Technology Physics): physical model that optimizes the design for specific needs within the constraints of specific technologies, people, costs and scope of time specified by the engineer as a builder.

e. The Implementer Perspective (Component Assemblies): The special technology, about how components are assembled and operated, configured by technicians as the implementer.

f. The Participant Perspective (Operation Classes): The events of the real functioning system used by the technicians as a participant.

2.2   EAP (Enterprise Architecture Planning)

Enterprise Architecture Planning (Enterprise Architecture Planning) is a collection of architectural and strategic field which includes information, business systems, and architectural engineering. EAP is a modern approach to the planning of the quality of the data in order to achieve the mission of information systems technology. EAP is also a process of defining a number of architectures, namely: data architecture, application architecture, and technology architecture in using information to support the business. EAP has associated with how to align business strategy with IT strategy in which the organization's business development strategy will be the starting point for determining the next IT strategy. EAP will provide a map of the enterprise is planning to track changes in business and technology. The linkage between the existing architecture is essential for the EAP. It is therefore not developed in isolation EAP, EAP should be looked at in the perspective of enterprise-wide. World-class IT infrastructure according to (Kern et al., 1998) is an infrastructure that has the characteristics:

    a.   High customer satisfaction
    b.   Cost effective
    c.   Data Integrity
    d.   Effective process
    e.   Good communication (internal and external IT)
    f.   Metrics are already well
    g.   Practiced the process of disaster recovery
    h.   Cost of services is well documented
    i.   The ability to compare services

j. Reliability, Availability, and Serviceability high. In its development, the EAP will be better and easier if you follow a certain frame of mind called EA framework.

Examples include: Zachman Framework, Federal Enterprise Architecture Framework (FEAF), DoD Architecture Framework (DoDAF), Treasury Enterprise Architecture Framework (TEAF), The Open Group Architectural Framework (TOGAF), and Garter (Yunis and Theodora, 2012). Because EA Framework provides the only frame of mind, then for technical product development or management of enterprise architecture can adopt a process / specific methodology, which can be adopted. His example among others: DODAF Six Step Process, EAP by Steven Spewak based on the Zachman Framework, Building Enterprise Information Architecture: Reengineering Information System by Melissa A Cook who is also based on the Zachman Framework, The Practical Guide to Federal Enterprise Architecture based on FEAF, and TOGAF Architectural Development Method (ADM) (Yunis and Surendro, 2009)

Result

	Data (What)	Fungsi (How)	Jaringan (Where)	Orang (Who)	Waktu (When)	Motivasi (Why)
Tujuan/Cangkupan (Perspektif Perencanaan)	Daftar hal-hal yang penting bagi enterprise	Daftar proses-proses yang dilakukan oleh enterprise	Daftar lokasi oprasional enterprise	Daftar unit organisasi	Daftar waktu/siklus bisnis	Daftar tujuan dan strategi bisnis
Modal Bisnis (Perspektif Pemilik)	Entity relationship diagram (mencangkup m:m,n-ray,relasi-relasi berartibut)	Model proses bisnis (diagram aliran data fisik)	Jaringan logistic (node dan link)	Struktur organisasi, dengan peranan;kumpulan keahlian;isu keamanan	Jadwal bisnis induk	Aturan bisnis
Model Sistem (Perspektif Arsitek)	Model data (rtitas valid,normalisasi sepenuhnya)	Diagram aliran data spesifik; Arsitektur aplikasi	Arsitektur system yang didistribusikan	Arsitektur antar muka manusia (peranan, data, akses)	Diagram kebergantungan, sejarah hidup entitas(struktur proses)	Model aturan bisnis
Model Teknologi (Perspektif Builder)	Arsetektur data table dan kolom);peta data baru terhadap data lama	Rancangan system; structure chart, pseudo-code	Arsitektur system (perangkat keras,tipe perangkat lunak)	Antarmuka pengguna (bagaimana perilaku system);rancangan keamanan	Diagram aliran kendali (struktur kendali)	Rancangan aturan bisnis
Detailed Representation (Perspektif sub-kontraktor)	Rancangan data demormalisasi),rancangan penyiapan fisik	Rancangan prgoram detail	Arsitektur jaringan	Layar,arsitektur keamanan (siapa dapat melihat apa)	Definisi waktu	Spesifikasi aturan dalam program lois
Functioning system (Perspektif pengguna)	Data yang dikonveksi	Program yang dapat dieksekusi	Fasilitas komunikasi	Orang yang sudah dilatih	Kejadian bisnis	Aturan yang memaksa

Tabel 1.1. Result EAP PT.Kresasi Utama Mandiri

From Table 1.1 it can be seen that by using the Zachman framework it will produce 36 cell which describes the overview EAP for pt.kreasi Utama Mandiri, for example in the data table (what) Objectives and scope describes a list of things that are important for the company, for example the sales target, cost expenditures and other matters related to business processes. as well as other cell that describes the EAP at PT. Kreasi Utama Mandiri, so that the use of EAP can help the overall company business processes.

Conclusions

The conclusion that can be taken by the authors in this research Enterprise Architecture Planning and Design of Information Systems Technology at PT. Kreasi Utama Mandiri using the Zachman Framework is to apply its integrated system and data processing that constantly updates it will support the business processes that lead to profit for the company so that the consistent use of EAP in the systems and networks that exist on the PT. Creation of Mandiri give several points that support the company's performance.

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