

ENTERPRISE ARCHITECTURE OF MANAGEMENT ASSET AND SERVICE USING ENTERPRISE ARCHITECTURE PLANNING (EAP) AT THE OFFICE OF STATE WEALTH SERVICES AND AUCTION IN INDONESIA

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Abstract---*The Office of State Wealth Services and Auction is one vertical agency of the Directorate General of State Assets responsible to the DJKN Lampung and Bengkulu Regional Offices, The Office of State Wealth Services and Metro Auction operates two functions. First, The Office of State Wealth Services and Metro Auction run function as the executor of regional level State Property Management and the second function as the Property User Authority in its position as a vertical office within the Ministry of Finance. The method used in this research is Enterprise Architecture Planning. While the data collection methods used are interviews, observation and literature study. The analysis process begins with the planning stages, understanding the current conditions, then making an enterprise architecture model using Enterprise Architecture Planning, the next step is making the implementation plan and application portfolio and the process of testing the enterprise architecture model which includes data architecture, information architecture, application architecture, technology architecture. This research results in a blueprint for the design of Enterprise Architecture Planning (EAP) and the upcoming Asset Management Information System Development utilizing Mobile-based technology in managing asset management both operationally and financially and ensuring that the assets are managed, controlled and used efficiently and effectively.*

Keywords---*Enterprise Architecture Planning (EAP), Mobile, The Office of State Wealth Services and Auction, Asset Management, Services, Indonesia.*

I. Introduction

The Office of State Wealth Services and Auction is one organization or agency that carries out two functions. The first is to carry out the function of implementing regional level State Property Managers and the second function as the Property User Authority.[4]

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Enterprise Architecture Planning (EAP) as a frame of reference for building an information architecture oriented to business needs which consist of data architecture, applications and technology as well as implementation plans of the architecture that have been made to support business activities for the achievement of the organization's mission.[1]

Architecture Enterprise Research for the process of asset management has been done before with a case study of asset management owned by PT. Pembangkit Jawa (PT.PJB) with the Zachman Framework that produces the blueprint of data, application and technology, while companies are trying to implement a blueprint of data architecture and business processes in the form of paper documents.[3] Other research on Enterprise Architecture is the planning of Corporate Architecture for Asset Management in PT. Musdalifah Group using the Zachman Framework which produces a business process blueprint and data architecture by utilizing paper documents followed by web-based and Mobile implementation.[6]

The Asset Management Process had never been done before by The Office of State Wealth Services and Auction. With so many work units related to agencies and to optimize asset management planning in the agency's internal environment, an Architecture Enterprise is planned by utilizing current technology based on Mobile. Asset management processes include planning, procurement, maintenance and deletion of assets using Enterprise Architecture Planning (EAP) which proposes systematic steps in the information system planning process that results in an Enterprise Architecture that can be used as a direction and control for the development of information systems and technology.

Based on above statements, the results of this study are carried out in the form of blueprints, data architecture, applications and technology are used as a reference in the process of asset management so that asset management at The Office of State Wealth Services and Auction can run more effectively and efficiently.

II. Literature Review

According to Hidayat, the purpose of Asset Management is to help an organization or agency to meet the objectives of providing and serving to be more effective and efficient.[5] According to Sri Lestari, the purpose of the company's architectural design is to align Information Technology with business to meet the needs of the organization. [8]

In a study conducted by Tities Sumunaring Tyas and Ali Tarmuji with the title "Designing Enterprise Architecture Planning (EAP) in the Asset Management Process", the study discusses how to align business strategies and IT strategies as a support for the achievement of objectives in asset management to be more maximized. [3]

In a study conducted by Mulyati, Yulianto and Andika Supriyana with the title "The Design of Asset Management Web Information System in PD. BPR Kerta Raharja Balaraja Branch", the research discusses how to design management with PHP programming language. [5]

In a study conducted by Melda Agarina with the title "Utilizing the TOGAF Framework for Planning Management Asset Information System and Logistics at IBI Darmajaya Bandar Lampung", the study discusses applications specifically designed to facilitate the asset management and logistics bureau. The method in this research uses 5 stages of ADM TOGAF. [7]

In a study conducted by Sri Harjanto, Setiyowati with the title "Asset Management Business Process Modeling Using TOGAF Architecture Development Method Case Study of STMIK XYZ Surakarta", the study specifically discusses the purpose of business architecture design that can be integrated with current business activities at STMIK XYZ. [9]

In a study conducted by Yeffry Handoko Putra and Imelda with the title "The Design of Intellectual Asset Security Management Systems in Puslit Telimek Lipim Center Using the TOGAF Framework and ISO / IEC 17799: 2005 Standards", the study discusses the asset security management system using the TOGAF framework and Standards ISO / IEC 17799: 2005 conducted in Puslit Telimek Center.[10]

Enterprise Architecture Concept

Enterprise Architecture is a collection of relevant model representations for describing an enterprise architecture. Enterprise Architecture provides an overview of the main enterprise resources, and how they are integrated to provide the main drivers for the enterprise. The Enterprise Architecture Framework provides a framework in which all enterprise information can be classified and linked in an appropriate form and traced in order to identify problems in an integrated way.[1]

Enterprise Architecture Planning

According to Surendro, Enterprise Achievement Planning (EAP) is the process of defining the architecture of information used in supporting business and plans to implement it. EAP is a methodology developed to build an enterprise architecture and part of the information planning process that can achieve the information system mission in the long term.[1]

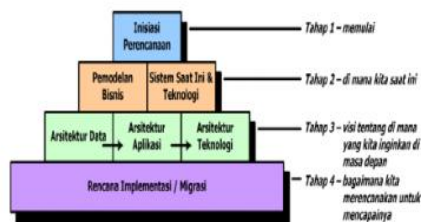


Figure 1 The Components and Layers of Enterprise Architecture Planning [1]

III. Research Methodology

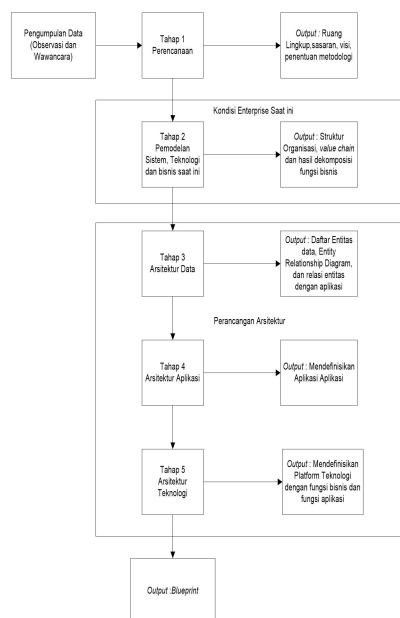


Figure 2 Research Methodology

IV. Analysis and Discussion

The Planning Initialization

The Initialization Processes of Enterprise Architecture development planning are carried out as follows:

A. Enterprise Architecture Planning (EAP) Work Plan

Based on the scope that is adjusted to the planning of the development of Corporate Architecture in The Office of State Wealth Services and Auction for the Asset Management process which includes Asset Planning, Asset Procurement, Asset Maintenance and Asset Removal in accordance with the Corporate Architecture Planning starting from the first stage, our current position stage, and the stage of our future vision.

B. The Analysis of Vision and Mission

In both vision and mission of the agency in "Managing resources for the management of state wealth and government investment efficiently", the planning is carried out related to both vision and mission so it can produce blueprints as an agency's way in accordance with current technological advancements in optimizing asset management.

The Overview of Current Enterprise Conditions

The condition of the Asset Management Business Process at the current Institution, as follows:

A. Asset Planning

In the asset planning process, the fulfillment of asset needs is carried out by the work unit and agencies as the Work Unit so the planning of assets is done by fill out the form list.

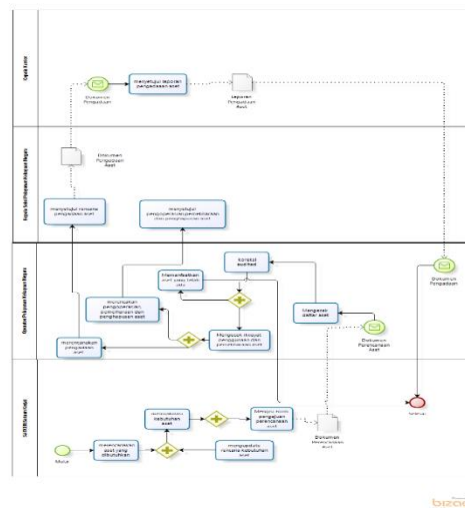


Figure 3 Asset Planning Business Process

B. The Asset Procurement

The Asset Procurement process is carried out when the General Section has made a list of procurement, then the list of procurement is received by the State Assets Management Section.

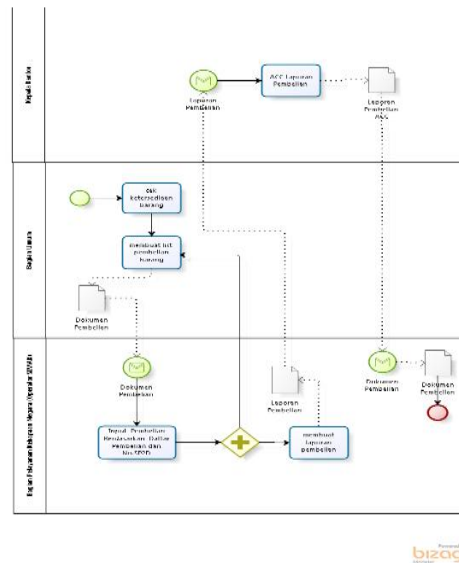


Figure 4 Asset Procurement Internal Business Processes

C. The Asset Maintenance

Asset Maintenance is carried out under the use of assets by the relevant Staff.

D. The Removal of Assets

The Asset Removal process is carried out when the submission of new assets to old assets, or damaged assets has been approved by the Work Unit Head.

The Current System and Technology

The current system and technology The Office of State Wealth Services and Auction in the asset management process are still desktop-based to carry out every process related to asset management.

The asset management process is carried out using documents that support the asset management process. The documents used are form lists for planning and procuring assets. For Asset Maintenance, a Desktop-based Monitoring checklist is used to monitor assets in the asset maintenance process.

V. The Architecture Planning

A. Data Architecture

Data Architecture is carried out by considering the data requirements of each asset management process contained in the company or work unit.

The Work Unit Entity with the State Assets Management Section.

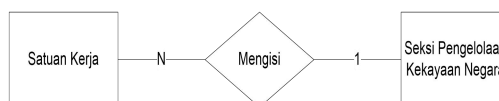


Figure 5 E-R Diagram of the Work Unit Filling the Asset Planning Form

Entities General Subdivision with Management of State Assets.

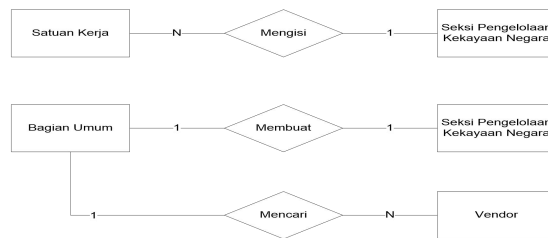


Figure 6 E-R Diagram of the Internal Goods Procurement Process

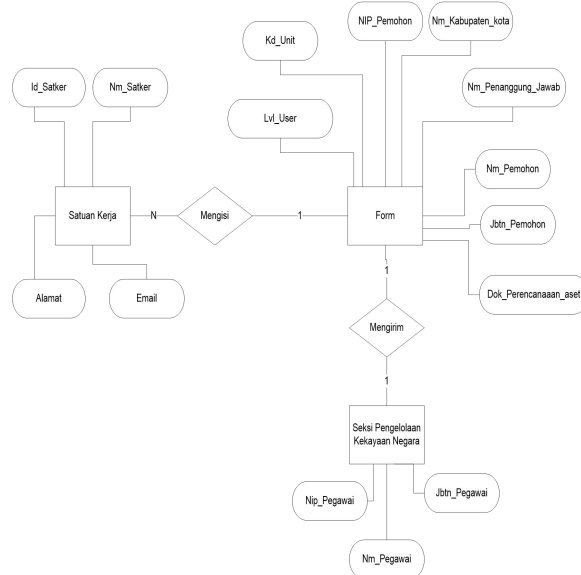


Figure 7 E-R Diagram of the Asset Planning Process

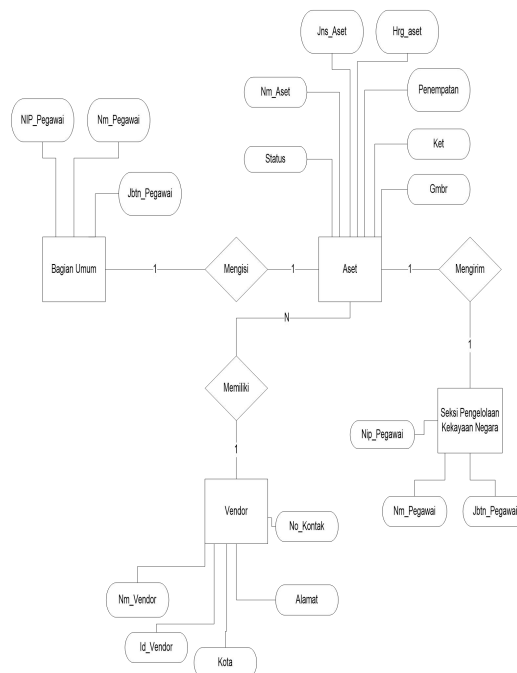


Figure 8 E-R Diagram of Internal Asset Procurement

B. Application Architecture

The design in the development of the planned application architecture is a list of applications that are most likely needed by the agency in carrying out the asset management process. Planned applications include applications that support the process of asset planning, asset procurement, asset maintenance and asset write-offs that are integrated with one centralized database.

Table 1 Application Candidates in the Asset Management Process

No.	Process	Application Candidates	Description
1	Asset Planning Process	Asset Management Information System	New Development
	Novelty :	Mobile Application of Asset Planning	New Development
2	Asset Procurement Process	Asset Procurement Management Information System	New Development
	Novelty :	Mobile Application of Asset Procurement	New Development
3	Asset Maintenance Process	Asset Monitoring Information System	New Development
	Novelty :	Mobile Application of Asset Monitoring	New Development
4	Asset Removal Process	Asset Removal Management	New Development

No.	Process	Application Candidates	Description
		Information System	

C. Technology Architecture

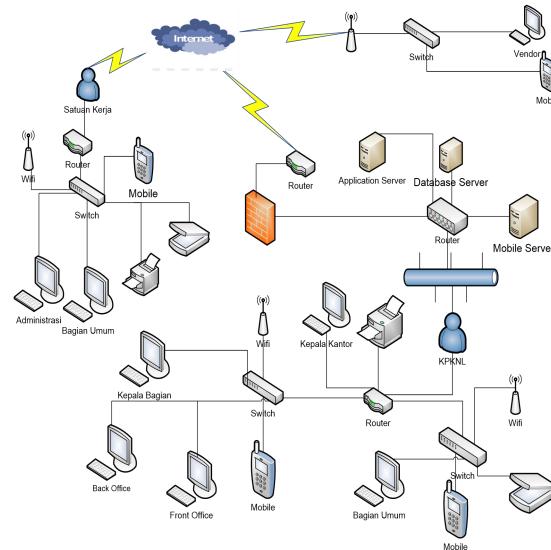


Figure 9 Technology Architecture

In the Technology Architecture above, work units in asset planning can upload files and fill in forms based on Mobile, making it easier for work units that are located far away in planning assets, and the vendor gets a notification message whether the procurement is accepted or not. If the vendor is accepted, it will issue Purchase Order (PO).

VI. Conclusions

The results of this study are:

1. This research produced a blueprint consisting of architecture data, application, and technology as a guide in making asset management and services at The Office of State Wealth Services and Auction.
2. The Design of Architecture Technology is based on mobile, making it easier for agencies to do procurement, vendor selection, and facilitate work units in asset planning.

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