International Journal of Multimedia and Ubiquitous Engineering Vol.10, No.8 (2015), pp.65-72 http://dx.doi.org/10.14257/ijmue.2015.10.8.07

The Use of Enterprise Architecture Framework for Improving Service Quality (Case Study ABC State Attorney)

Sevenpri Candra, Frisa Erika and Hudiarto

Bina Nusantara University, Indonesia seven@binus.ac.id

Abstract

Public service is a basic need that should be fulfilled by the government, particularly in legal services. The purpose of this research is to analyze the service strategy management information system at the State Attorney of ABC, also to give suggestion for system improvement, in order to achieve a good service quality. The method used in this research is the Enterprise Architecture framework, which is by analyzed current system design, and then being compared to the problems that have become obstacles in organizational process, and finally suggestion made to improve the service quality. The conclusions are current system at the State Attorney of ABC is not yet integrated, nor it has any control over the duration of each case processing, so it still common cause the delays and lack of service quality to the community are not uncommon. The result of this research is the proposed service strategy and process which is indicates that by using the integrated management information systems, the service at State Attorney of ABC would be better, so as to improve the quality of services that provided.

Keywords: Information, System, Enterprise Architecture, Service Quality, Management Information System, SWOT, State Attorney, EA3

1. Introduction

Government agencies in Indonesia and also as elsewhere are facing a dynamic business environment, with increasing expectations of operational efficiency. One of operational efficiency that implement is public service, especially legal service. This operating environment means that government agencies may use a range of mechanisms to align their business strategy and IS/IT.

Developments in the world of technology have been behind the need for organizations to use information systems that support decision making. An organization must be able to adapt systems and technology appropriate information. With integration between departments - departments , so that the manager can easily control the work of employees and work under it to run efficiently in accordance with the vision and mission of the organization .

However, the application of ICT is apparently still touching part of law enforcement agencies such as police, prosecutors, and courts in major cities, especially the capital, so far the service processes within the law enforcement agency in the region is still manual and cannot serve with the public good.

This study will focus on the law enforcement agencies, particularly the Attorney who has an important role in meeting the legal service needs of the community. As it is known that the Prosecutor is conducting state institutions of state power, especially in the area of prosecution.

Attorney General, High Court, and the District Attorney is a state power, especially in the area of prosecution, where everything is a unified whole that cannot be separated. Referring to the Law No.16 of 2004 on the Indonesian Attorney, Attorney as one of the

law enforcement agencies are required to play a greater role in upholding the rule of law, protection of the public interest, human rights, and the eradication of corruption, collusion and nepotism.

With the establishment of the above Act, the Attorney General should have realized that they entailed social functions in order to meet the needs and improve the welfare of society. But in reality, they often found that people do not get public services in line with expectations. From direct observation, Attorney based in the Capital or district jurisdiction covers the power and district / city, called the State Attorney, the average has been applying ICT in the process.

But the State Attorney ABC, still not implementing information systems and technology in depth. They only implement standard systems such as inputting data and integrated system implemented yet, so in providing public services based on the principles of excellent service remain unaddressed.

State Attorney ABC have three (3) levels of hierarchy and 5 (five) areas of functionality include: Guidance Section, the Intelligence Section, General Crimes Section, Special Crimes Section, and Section Civil and Administrative. This study will focus on the area of the General Criminal functions that require the presence of the control system performance in order to file a criminal case may be processed precisely at a predetermined time. This is because the system is not integrated with the Section Chief of the Attorney General Crime resulting case files cannot be resolved in a timely manner.

This causes people to become less trusting Attorney legal services. In addition to its proceedings are not completed in a timely manner, as well as the lack of transparency of information to the public, so that people do not get information about the case until the people summoned to court. For that we need good information systems to be able to control the processing of the case files and also speed up the processing duration of the case file. With the timeliness in processing case files, then the decision on the investigation and research can be done quickly and precisely and to improve public confidence in the legal services Attorney.

Based on the above description, the problem that are facing with this attorney will be analyze and design through Enterprise Architecture framework. The purpose of this paper are to analyzing the strategies and information technology services at the State Attorney General Criminal ABC order to meet the desired quality of public services, particularly those that deal with the litigants or the part; propose improvement strategies and information technology services that can improve the effectiveness on the part of the Attorney General Criminal District Attorney ABC the next three years; propose solutions and information technology systems appropriate for the State Attorney General Crimes section ABC in order to reach a good quality service .

2. Literature Review

Enterprise architecture or EA is widely adopted for improving information system development strategy, especially to handle corporate and governance information [1–3]. Enterprise architecture is an integrated and holistic vision of a system's fundamental organization, embodied in its elements (people, processes, applications, and so on), their relationships to each other and to the environment, and the principles guiding its design and evolution [4].

According to [2] Enterprise Architecture is an emerging profession and management practice that is devoted to improving the performance of enterprises by enabling them to see themselves in terms of a holistic and integrated view of their strategic direction, business practices, information flows, and technology resources. More further [2] stated that by developing current and future versions of this integrated view, an enterprise can better manage the transition from current to future operating methods. This transition includes the identification of new goals,

activities, and all types of capital and human resources (including information technology) that will improve bottom line financial and mission performance.

The concept of EA was emerged from John Zachman's idea. According to [5], with increasing size and complexity of implementation of information systems, it is necessary to use some logical construct or architecture for defining and controlling the interfaces and the integration of all of components of the system. Its reemergence as a way to cope with organizations' ever-increasing complexity relates to evolving new business trends and IT. Business trends comprise globalization, mergers and acquisitions, e-commerce, and customer-relationship and supply-chain management [4].

The following equation will explain what EA is all about, and will remind readers to distinct difference between EA and other types of IT planning... that EA is driven by strategic goals and business requirements [2].

$$EA = S + B + T$$
Enterprise Architecture = Strategy + Business + Technology

EA is a strategy and business-driven activity that supports management planning and decision-making by providing coordinated views of an entire enterprise. These views encompass strategy, business, and technology, which are different from technology-driven, systems-level, or process centric approaches. Implementing an EA involves core elements, a management program, and a framework-based documentation method [6].

As seen on Figure 1, the Figure describe the EA analysis and design that are accomplished through the following six basic elements: (1) an EA documentation framework, and (2) an implementation methodology that support the creation of (3) current and (4) future views of the architecture, as well as the development of (5) an EA Management Plan to manage the enterprise's transition from current to future architectures. There are also several areas common to all levels of the framework that are referred to as (6) "threads" as shown in Figure 1 [2,6].

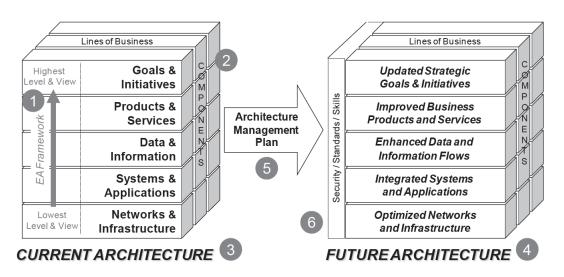


Figure 1. Basic Elements of EA Analysis and Design

3. Analysis of Current and Future System

Based on desk research and interviews, there are several point that can be concluded. The points are explained in this section. The vision of this State Attorney is independent central position in law enforcement in order to realize the rule of law and respect for human rights. The mission of the State Attorney XYZ city include: Securing and maintaining the life philosophy of Pancasila as the Indonesian people against businesses

that want to destabilize the joints of the community life of nation and state; Embodiment Attorney independent agencies in the implementation of law enforcement duties, regardless of the influence of the executive; Attorney apparatus embodiment is more professional and have high moral integrity in law enforcement; Embodiments of the increased role of the Prosecutor in the program of local legislation, particularly with regard to the duties and functions of the Prosecutor's authority; Contribute to maintain and uphold the authority of the law and protect the public interest by the public interest having regard to the sense of justice that grow and thrive in the community having regard to human rights; Embodiments of the availability of adequate infrastructure to support the law enforcement duties.

Factors to be an opportunity for the ABC State Attorney are task research and Development Center which are coordinated and consultation in the preparation of projects and research activities, assessment, development, and scientific cooperation with other scientific activities within the work unit Attorney, Indonesia government Attorney are running the Quick Wins program, a program for the improvement of business processes from main products Attorney. The program is intended to rebuild public confidence (public trust building) to the Attorney General, Existence Attorney cooperation with USAID in order to Change for Justice. This project is focused on maintaining and deepening reforms in the justice sector Indonesian judicial system to produce a low corruption, more accountable and more efficient. This objective will be achieved through the Supreme Court and the Attorney General's Office more efficient, credible, and transparent, including increasing the competence and integrity of judges, prosecutors, and staff, Existence of bureaucratic reform program of the central government.

Diversity of information systems (software) is offered as SOA (Service - Oriented Architecture). SOA is an architectural concept that utilizes existing services in a network system that enables organizations to rapidly respond to the needs of a dynamic environment and Microsoft SharePoint is collaboration software that makes it easier to work with simplify business intelligence, content management, search, and how to share via intranet and internet.

On other side, there are factors that pose a threat to the ABC State Attorney. First, there are "mafias" that utilizes the law for the sake of earning money. The principle of justice is fast, simple and low cost. Complicating law enforcement in Indonesia is rampant "culture of corruption" at all bureaucracy and social stratification that have made only limited legal containing rhetoric and empty speeches. With the increasing number of "mafias" that utilizes the law; it is becoming a threat to the ABC State Attorney that really wants to enforce the law. Second, Society is less confidence in the legal services because of bad imaging District Attorney Prosecutor, so that people are often reluctant to touch with the Attorney, the result is that people will tend to execute itself on a variety of issues related to law and the courts.

Third, Information on Electronic Transactions not supports the process of investigation. In the context of wiretap requests, as stated in Article 31 paragraph (3) UU ITE, is for the sake of law enforcement that also regulates wiretapping in criminal cases. But tapping on the principle should be banned, because it has violated the privacy rights of individuals, and therefore should be regulated in the same level with the ITE Law. Fourth, Lack of technology integration among the ABC State Attorney with police and local courts, thus causing the length of case processing time, so that the services produced less than the maximum.

In order to determine the relative attractiveness of various alternative strategies, can use the Quantitative Strategic Planning Matrix (QSPM) to indicate which the best strategy is. QSPM be a tool that allows authors to evaluate various alternative strategies objectively based on critical success factors of external and internal that had been identified previously. In the matching stage has been done before, there are three most dominant strategies and recommended for further evaluation, namely:

- 1. Market development strategy, which is to increase employee performance Tigaraksa State Attorney in order to produce quality legal services to the public. Market development can be done by providing training to employees in the technology field.
- 2. Services development strategy, which is to increase public confidence in the State Attorney Tigaraksa by presenting information in a transparent manner. The development of these services can be done by improving existing systems and integrate existing systems in the State Attorney Tigaraksa, especially on the part of the General Criminal.

Based on our analysis and result that the total amount of the appeal (TAS) for market penetration strategy for 4.679 and 5.884 for the development of services. From these results, it can be concluded that the strategy of the development of the service is an appropriate strategy for the State Attorney Tigaraksa than market penetration. Efforts should be made to implement the development strategy of the service is to repair the existing system, and integrate systems on the part related to the case, namely the General Crimes, in order to increase public confidence and provide a good quality service to the community.

As seen on Appendix 1 and 2, the comparison current and future system can be seen that in general the fundamental changes which systems and information technology can be utilized to simplify operational processes and at the same time the prosecutor made a strategy plan for two or three years into the future. Target systems strategic plans and information technology activities of the prosecutor is to link with outside parties such as the police and the courts. These three agencies are closely associated with the intranet, so that traffic data and information can be quickly implemented without having to move a lot of suspects and manual document. So, there was a cost savings to the shipping documents, the suspects and evidence in addition to speeding up the decision process.

4. Conclusion

From the above explanation, it can be seen clearly that the use of information systems and technology which, if designed correctly by using Enterprise Architecture framework can help improve operational performance in both the agency prosecutor, police and courts. Speed of service, clarity of the status of the troubled, officers and staff who handle cases recorded properly, as well as base data associated with a case. Ease of track indications mafia activities are also more possible. Duration of case management can be known and can be evaluated so that gradually more and more short-time needs.

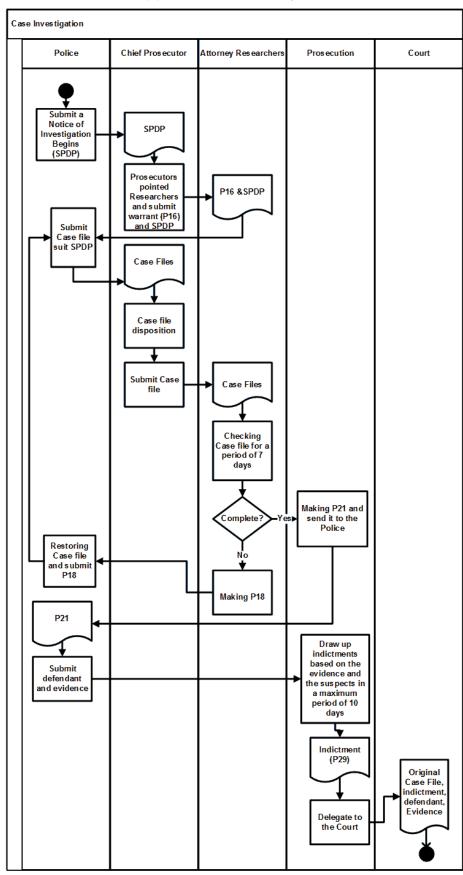
Investment both in terms of hardware, software and training costs must be negotiated to get the best way among users that the prosecutor, police and courts. The expected result is the decreasing number of files that the trial is now very much. The government should provide adequate funding allocation system and information technology that can be applied with the aim of providing better services to the public.

That in general, the existing system has not been integrated in the District Attorney, also there is no control over the duration of each case, so that the processing of the case is still often too late and causes a lack of quality service to the community.

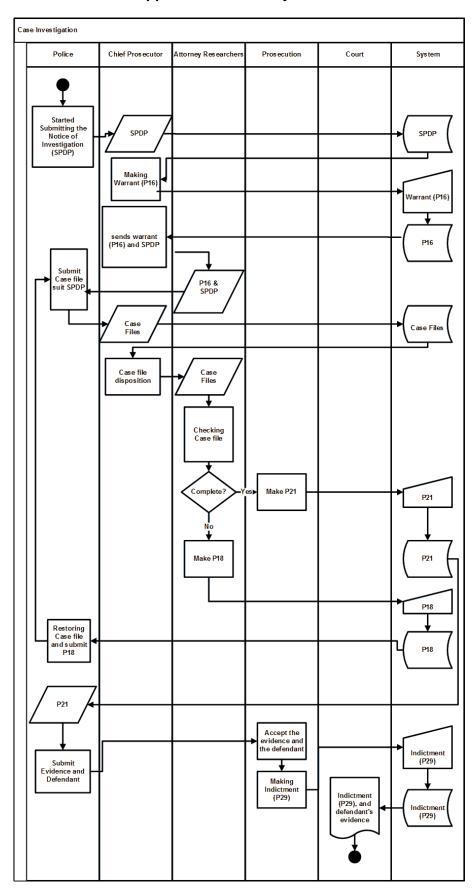
Recommended strategies and service quality integrated system is intended to support the State Attorney employee performance, particularly the General Crimes, in order to process cases in a timely manner, provide good quality service to the community, and eventually will be able to restore public confidence in the State Attorney.

References

- [1] "Federal Enterprise Architecture (FEA) |The White House," [Online]. Available: http://www.whitehouse.gov/omb/e-gov/fea. [Accessed: 05-May-2014].
- [2] S. A. Bernard, "An Introduction To Enterprise Architecture," Third Edition. Author House, (2012).
- [3] T. Zheng and L. Zheng, "Examining e-government enterprise architecture research in China: A systematic approach and research agenda," Government Information Quarterly, vol. 30, pp. S59–S67, Jan. 2013.
- [4] H. Shah and M. El Kourdi, "Frameworks for Enterprise Architecture," IT Professional Magazine, vol. 9 no. 5, October (2007), pp. 36–41.
- [5] J. A. Zachman, "A framework for information systems architecture," IBM Systems Journal, vol. 38 no. 2/3, (1999), pp. 454–470.
- [6] J. Gøtze, "The EA3 Cube Approach | The EA Pad," The EA Pad, 2013. [Online]. Available: http://eapad.dk/ea3-cube/overview/. [Accessed: 05-May-2014].



Appendix 1. Current System



Appendix 2. Future System