THE ENHANCEMENT OF STRATEGIC AND OPERATIONAL PERFORMANCE THROUGH ENTERPRISE ARCHITECTURE IN XYZ'S DISTRICT ATTORNEY OFFICES

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Abstract: The deteriorating image of law enforcement agencies in serving the needs of nowadays community is making the chiefs of XYZ's district attorney offices to search the best way so that the law service in their offices can be better. This problem is the general reflection of how bad the public service in law's field is in our country. For that noble purpose, the chiefs see that there is a chance to use the ability of system and information technology. That system is not only for the necessary needs in district attorney office but it is also combined in the existing process in security and court. The chief of office feels that the enhancement performance will be obtained easier if there is the same system and technology and are designed carefully. Within this paper, the researcher uses the framework of Enterprise Architecture to develop the needed system and technology so that it can be realized strategically and operationally much better and can be accounted. The result is the current time conservative service system and have the quality of office automation systems is gradually planned to change into automation for the next two or three years. Therefore, the connection and the cooperation between the attorney, the police and the court will be more harmonic, thus gradually increased the service to the community.

Keywords: Community service; Cooperation among agencies; Office automation system; Enterprise Architecture

INTRODUCTION

Public service is an essential need for the community that should be fulfilled by the government in the national and state life, either it is in form of public services such as administrative service, or services such as education, health service, and law service. Connected with the public service quality which is not corresponded with the expectation of the community, government, particularly the law enforcement agency has to do improvement regularly in the quality of public service to realize the principle of excellent service which is expected by the community to create satisfaction and the enhancement of trust from the community. The resolution of the said problem has to be found. The effort to realize the principle of excellent service is not easy but it is also not hard.

Badan Pengkajian dan Penerapan Teknologi (BPPT) stated that the application of information technology and communiction is a very important thing in the effort to increase the public service of the

government agencies. However, the application of information technology and communication here still covers some of the law enforcement agencies such as the police, the attorney, and the court in big cities, especially the capital city. Therefore, until now, these service processes in the law enforcement agencies in regional area still have the quality of office automation systems and cannot serve the public well.

Referring to the bill on particle 16 of 2004 regarding the judiciary of Republic of Indonesia, the judiciary as one of the law enforcement institutions is pointed to have more role in maintaining law supremacy, public interest protection, human rights enforcement, as well as the eradication of corruption, colution, and nepotism. With the establishment of the above bill, the judiciary should have realized their social function in fulfilling the need and the enhancement of community's welfare. However the fact is, it is often found that the society has not obtained the public services that are in accordance with the expectation.

Generally, the district attorney offices are still not applying the system and technology information in deep. They only apply the system that have the quality of office automation systems such as inputting data and system which are applied has not been integrated, hence providing the public service which is based on the principle of excellent service is still cannot be fulfilled.

This research will focus in the function of general criminal area which needs the performance controlling system so that the criminal docket can be processed within the determined time.

This cause the society to have lack of trust towards the attorney public service. Besides the unfinished the case files on time, the lacking information transparency for the society also makes the society cannot obtain information regarding the cases until the said person is called to the Court.

The district attorney of XYZ city has three level hierarchy and five functional area which are: the development section, intelligent section, general criminal section, special crime section, and civil and administrative section. This research will be limited in the area of general crime's function which needs the performance controller system so that the case files can be processed on the determined time. This is caused by the not integrating system between the chief prosecutor and the general crime section causing the case files cannot be finished in time.

This leads the society to become less trusting toward the attorney law service. Besides the unfinished case files on time, the lacking information transparency for the society also makes the society cannot obtain information regarding the cases until the said person is called to the Court. Therefore, good system information is needed to control the process of the case files and to hasten the duration of the process of case files. With the time accuracy of the case files' process, then the decision making regarding the investigation and research can be done fast and precise also can increase the trust of society towards the law service of Attorney.

The goals of this paper is 1) analyzing the service of strategy and operational and the application of system and information technology in criminal law district attorney of XYZ to fulfill the service quality that is expected by the society, especially the one that deals with the said part; 2) providing the proposal of service improvement strategy and information technology that can improve the effectiveness in the state attorney general criminal Tigaraksa in the next three years; 3) giving the proposal of system and technology information solution that are precisely for the section of state attorney general criminal Tigaraksa hence a good service quality is reached.

Taking into account that the problem that is faced is the service towards the public, then the solution is to use the system and information technology with the adequate framework that is Enterprise Architecture. Because the framework has been proven to be success when it is applied in government agencies in the United States of America, then it is tried to be applied within this case. The framework of Enterprise Architecture, is done with portraying the current architectures for then be made the future architecture through certain steps.

The expectation of this paper is for the three parties, which are the district attorney, the police and the district court can apply this idea. If this application is success, then the next thing can be followed by other district attorney offices. Slowly but has the solid scientific base, then the connection of the law service enhancement from nation to Indonesian society can be realized.

LITERATURE REVIEW

Enterprise Architecture Framework

Enterprise Architecture is a development of profession and management practical to enhance the organization performance by enabling the organization to see the reflection from the processes that are done nowadays in term of strategy, the flow of information, and technology resources [1].

The formulation of Enterprise Architecture is:

EA=S+B+T

or Enterprise Architecture = Strategy + Business + Technology

The goal of Enterprise is to analyze and document an organization in the current and future condition in business, strategy, and technology viewpoints [1].

The methodology that is used in organizing Master Plan for the Strategic of Information Systems and Technology is the Enterprise Architecture [1]. This methodology is used widely in the United States of America where all the Ministry and Agency as well as the State Institutions use it therefore it can be said as a standard for the United States' Master Plan for the Strategic of Information Systems and Technology (May 2, 2012). That guide is officially issued by the White House that is where the President of United States works.
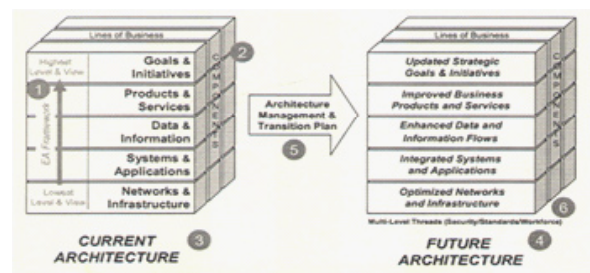

Fig.1 Framework of Enterprise Architecture

Regarding the behavior of this service, then the value chain model that is used is Value Network which is written by Ward and Peppard on the page of 266. Fig.2 is the concept of the used Value Network to evaluate services which are given by the District Attorney.

Service can be defined as actions, efforts or performances [2]. Every organization must have their service quality because service quality is the attitude that is formed by a long-period evaluation from the organization performance [2]. Therefore at every final evaluation, organization is producing a long-term plan to improve its service quality. To define the service quality, the thing that should be done is to differentiate it with customer's satisfaction because both of them is connected to each other.

Customer's satisfaction is for short period of time and is measured based on transaction specific,

while service quality is a behavior that is formed by the overall evaluation from a certain performance in long period [2]. Therefore, it can be concluded that, every activity between the organizations with the customer will cause satisfaction to customer that if it keeps accumulated then it can be a perception about the service quality of the organization.

An example of architecture system and information technology [4] which involves a lot of parties is can be seen on the figure below where an activity of travel and tourism agency will mostly involve the customer (both industry and individual), the local transportation service providers, hotels and flight. This kind of picture will be used to help the three agencies which connected in the law enforcement such as District Attorney, District Court and the Police.
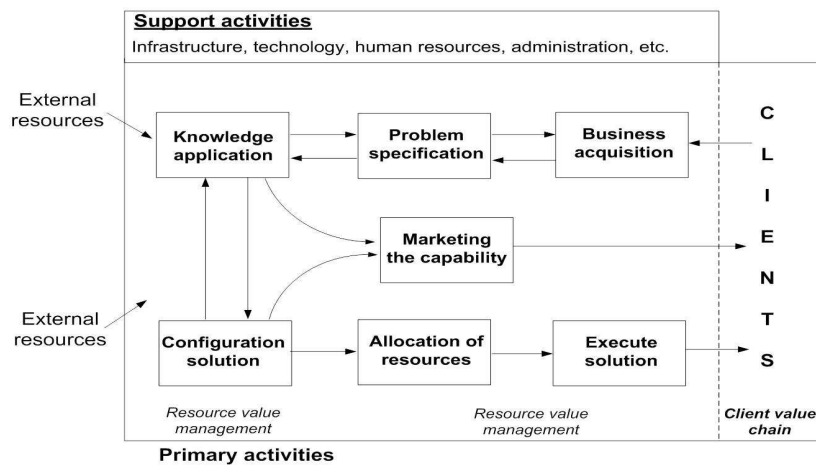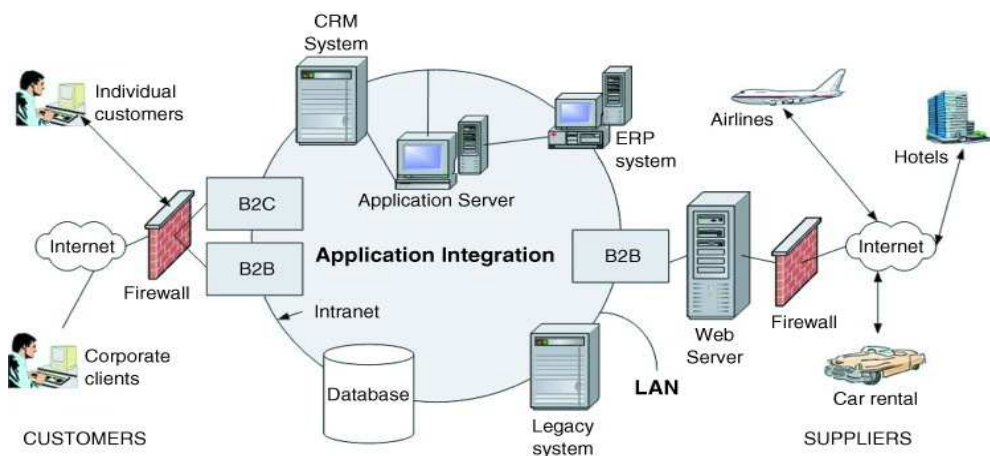

Fig 2. Value Network Diagram [3]

Fig. 3 Example of System Architecture and Information Technology
in a Travel and Tourism Agency

Computer-based Information System

According to Rainer et al (2007), the architecture and infrastructure of IT provide all system information foundation in an organization. System information (SI) is in charge to accumulate, process, save, analyze, and spread information for specific purpose. Computer-base System Information (CBIS) is a system information which uses computer technology to do some or all the expected works. Even not all the "system information" uses computerization.
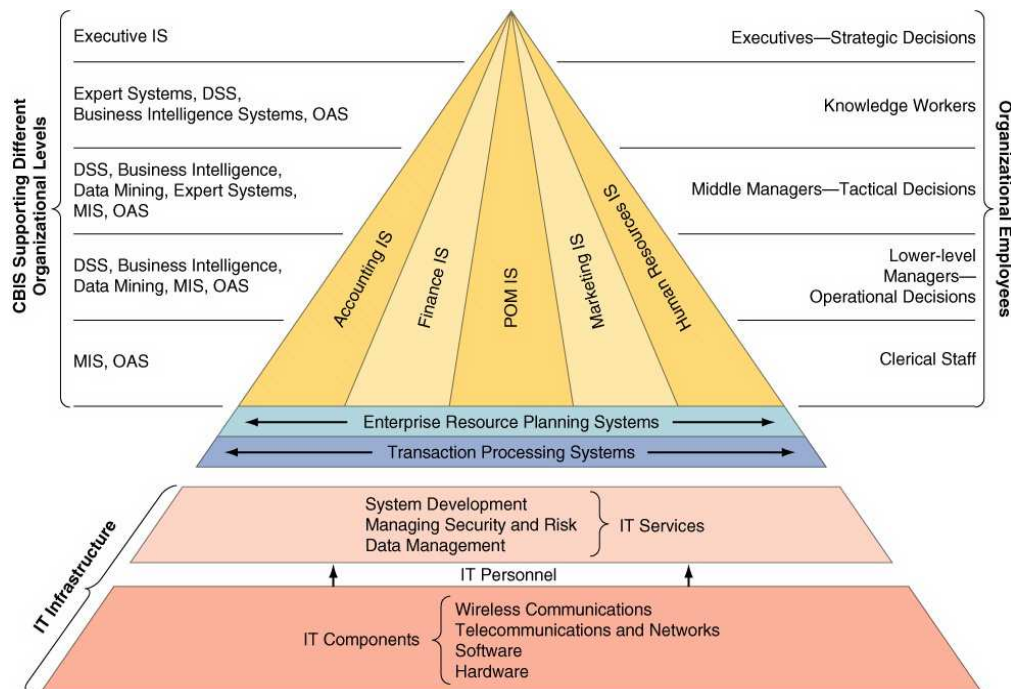

Fig. 4 the Existing System Information in an organization

It means that a system information can be formed as long have the three physical components which is data, procedure, and the person who does it.

For this purpose, system information have distinctive characteristics which uses the term computer-based system information. The basic component of system information can be seen on below. It has to be noted that in figure 4, hardware, software and network are the component of IT and data base is the service of IT. Hardware is tools such as processor, monitor, keyboard and printer. All the tools obtain data and information, process and display them. Software is program or a collection of program where the hardware can process the data. Database is a collection of table or related file which contains data. Network is a connection system (wire line or wireless) that enabling other computer to access the same resource. Procedure is a unit of command regarding how to combine the component above in processing information and producing the expected outcome. People are the individual that use the hardware and software, connecting one to another, or using the outcome. Computer-based system information has a lot of capability where in table 1 shortly describes the main capability.

Table 1. the main capability
of information system

Major Capabilities of Information Systems
• Perform high-speed, high volume, numerical computations.
• Provide fast, accurate communication and collaboration within and among organizations
• Store huge amounts of information in an easy-to-access, yet small, space.
• Allow quick and inexpensive access to vast amounts of information, worldwide.
• Facilitate the interpretation of vast amounts of data
• Increase the effectiveness and efficiency of people working in groups in one place or in several locations, anywhere.
• Automate both semiautomatic business processes and manual tasks.

Workflow is the movement of information that flows through various steps that forms the work procedure of organization [5]. The management of workflow is the automation of workflow, as far as document, information or work is given from a person to other person in a certain way that is determined by the rule or organizational procedure. The management of workflow is involving all the steps of business processes from the beginning to end, including all the terms or exceptional condition. Workflow system is an automation tool for business process which situates the system management in the hand of the user. This system uses several software programs which automate in almost all the information processing jobs.

METHOD

Within this research is used some several steps which have been described in the theoretical background section. Initially is performed data and information retrieval which is connected with five levels of informational system or technology architecture which is Goals and Initiatives up to the network and infrastructure added with three threads which are security, standard and human resources. Then through SWOT analysis, it is produced some strategy whereas from this strategy is made the future Information System and Information Technology. The draft for the future architecture within the steps of SWOT analysis, it is used the Value Network Diagram as the basis of assessing strengths and internal weaknesses of State Attorney. The draft result is in accordance with the future architecture however only some several important diagrams will be delivered, given by these diagrams, it can be already imagined how the design in the future will take form. If it is shown completely, the research methodology is on the figure 5 below.

CURRENT AND FUTURE ARCHITECTURE

Vision and Mission of Organization

The vision of District Attorney is the independent District Attorney with the central position in law enforcement to realize law supremacy and the honor of human rights.

The mission of XYZ's district attorney is: protecting and maintaining Pancasila as the philosophy of life as the Indonesian towards the efforts in destabilizing the national and state of the society's life; Embodiment independent attorney agencies in the implementation of law enforcement duties beyond the influence of the executive; Embodiment of more professional attorney agencies and high moral integrity in law enforcement; Embodiment of attorney role in regions legislation program, in the connection of the attorney's authority and function, in particular; Participating in securing and enforcing the legal competence and protecting the people's interest based on the public interest by taking into account the growing sense of justice in the community in accordance to the human right; Embodiment of the adequate facility and infrastructure to support the duty of law enforcement.
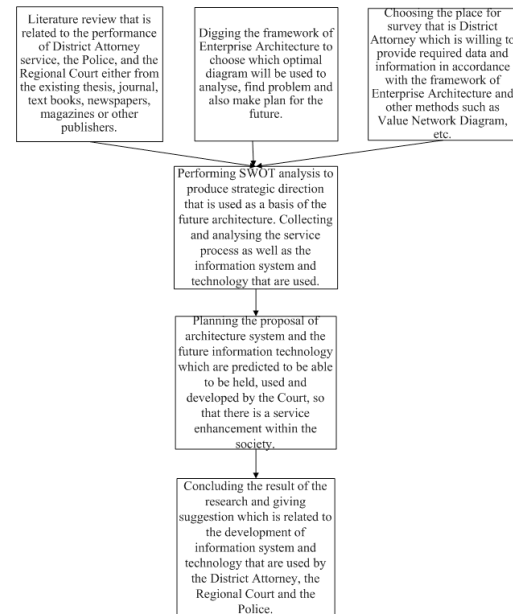

Fig. 5 research methodology that is used

Operational Strategy

To decide the relative attractiveness of various alternative strategies, Quantitative Strategic Planning Matrix (QSPM) can be used to show which the best strategy is. QSPM becomes a tool that enables a strategy planner to evaluate some alternatives objectively according to the important external and internal success factors which have been identified before. From the counting result, it is obtained that the Total Attractive Score (TAS) for the market penetration strategy is 4.679 and the development of service is 5.884. From the result, it can be concluded that the service development strategy is the right strategy for District Attorney compared to the market penetration.
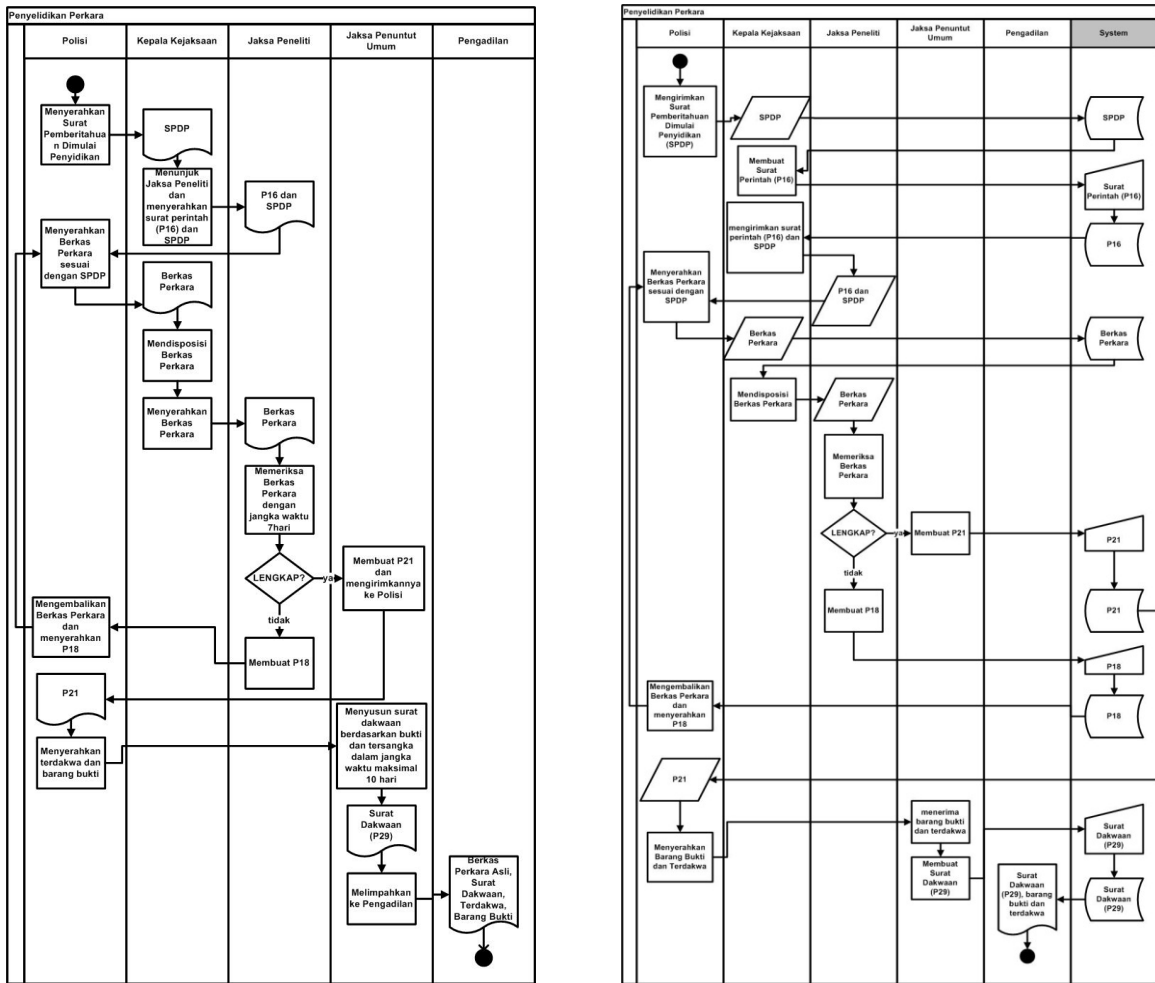
Fig. 6 Swim lane diagram to describe current and future architecture

To support that service development strategy, hence the most possible and available strategy in Indonesia is by using the strategic system and information technology, where system device and information technology have been available in the market and the price is affordable and it is necessary for the court staff to be able to operate it. Besides that, either the staff in constabulary or the court should have the needed skill so that the service for the society can be enhanced.

Next some analysis related to the organization is done, in accordance with the Enterprise Architecture framework. However, this paper will only show some of them, such as swimlane diagram, data flow diagram, entity relationship diagram, dan network connectivity diagram. Then, to have more understanding, all the diagram will be putted side by side (current and future architecture) therefore the differences are clear.

It can be seen here that generally there is a basic change whereas the information system and technology can be used to facilitate the operational process of attorney and also for the strategic plan to be made for the next two or three years ahead. The target

of information system and technology strategic plan is to connect the attorney activities with the external party such as the constabulary and the court.

These three agencies is tightly connected with extranet, in order for the data and information traffic to be implemented quickly without moving a number of suspect and their manual documents. Therefore, cost savings is occurred in sending the documents, suspects and the evidence beside speed up the process of decision making.

Whereas if the information system that exists is shown with DFD, it will take form as the following:

Fig. 7 Diagram of data flow for the current (top) and future architecture (below)

The main difference of the current and future system is the simplifying process where the defendant and evidence do not have to be moved from one place to another place. This movement of the defendant and the evidence is prone either to lose or detach the defendant in the process of movement besides the cost that has to be borne by the agency.

Note:

P16: Warrant from the chief prosecutor to appoint two persons as Attorney Researcher

P18:, the letter that is issued by the Attorney Researchers if the files were given are not complete and return the draft files to the police.

P21: if the files were given to the police are complete,the attorney investigator will turn into Public Prosecutor and issued the letter P21. With this letter P21, the public prosecutor will receive evidence and defendant from the police.

P29: the indictment that is made by the public prosecutor.

SPDP: notice of the beginning of investigation.

From the computer network side, between the court, police and attorney have not been connected each other hence the data and information have to be sent physically. Between the chief of attorney and attorney investigator/public prosecutor can communicate through the internet. In order for the synergy to be done, then these three agencies have to cooperate and connected each other through extranet technology.
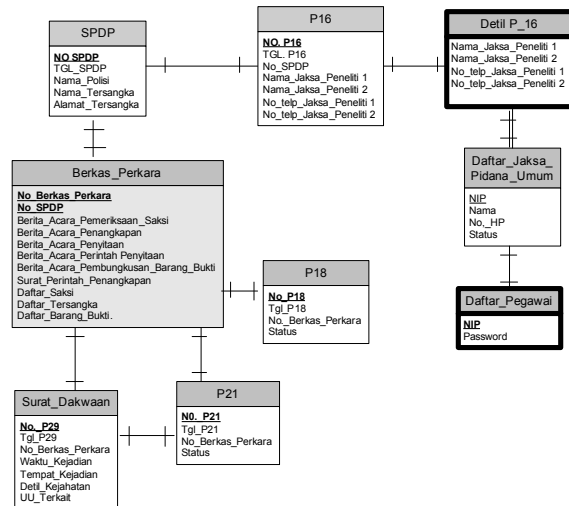
Fig. 8 Entity Relationship Diagram (ERD)
for current architecture

Fig. 9 Entity Relationship Diagram (ERD)
for future architecture

Fig. 10 the computer network
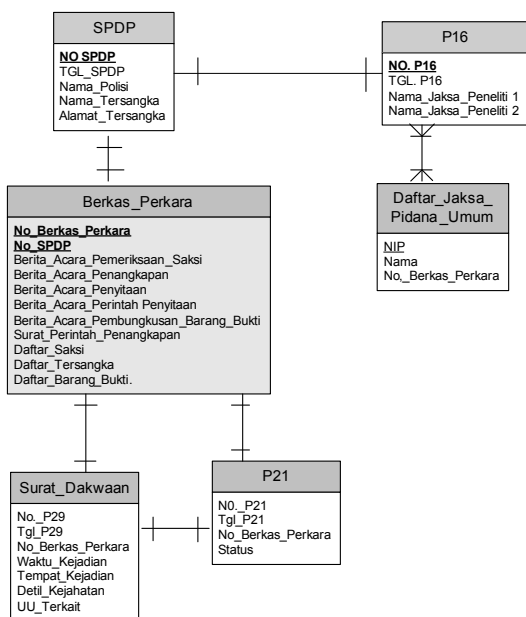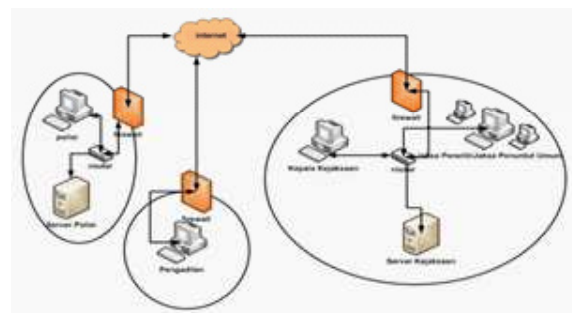of attorney – court – police current architecture

Fig. 11 the computer network
of the attorney – court – police future architecture

RESULTS AND DISCUSSION

From the above explanation, then it can be seen clearly that the application of information system and technology if they are planned correctly by using Enterprise Architecture framework can help to enhance the operational performance whether in the District Attorney agency, the police or the regional court. The rate of services, the clarity of the

problematic status, placeman or staffs that handle the well-established cases, as well as the basis data that related to certain case. For the said purpose, workflow, the management of workflow and the system of workflow have to be built. The easiness in tracking the indication of mafia activities also becomes more possible to be done. Duration of handling the cases can be known and evaluated thus gradually shortened the time that is needed.

A good invest from the hardware side, software, or the training cost absolutely can be negotiated to find the best way between the user agency which is the attorney, police or the court. Next the automation of workflow needs the security system that is not easy to be penetrated by the amateurs even the one that has high qualification. The expected result is the decrease of the total of court file that is very much now. The government should provide adequate fund allocation in order for this information system and technology can be applied with the purpose of providing a better service for the society.

CONCLUSIONS

In general, the information system in the district prosecutor is not integrated yet, nor controlled for the duration of each litigation process, thus the process is often delayed, reducing the level of the service to the society. In addition, attention should also be given to the relationship with other institutions such as police institution or district court involving the aspect of the security of the information system. Without paying attention on the collaboration of these three institutions and security, it is difficult to increase the level of service of the law to the society.

This recommendation on the strategy of the service quality and the integrated system is intended to support the performance of the district prosecutor `officers, particularly in the section of common law, to process quickly litigations, to increase the level of service to the society, and to strengthen integrity of the district prosecutor.

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