Management Death Level Evaluationproblems with the Service Level Agreement it Operation & Service Divisionpt AIA Financial

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Abstract:- Information technology is very important in providing operational support for companies, information technology has become the backbone in the face of competition in the business world. For maximum achievement of IT services requires a planning, implementation, monitoring, supported by evaluation of the maximum. So that problems occur can be addressed quickly. The reliability of the company in the management of information technology affects the quality of IT services in the enterprise, one of which can be measured using a Service Level Agreement. The measurement results that have been done with the frame work Information Technology Infrastructure Library which is of ITSM best practices will be used as a planning strategy of operational activities ahead of its information technology division to achieve its Service Level Agreement. In this research is to see how far the management maturity level measurement PT AIA Financial problems make it look ongoing IT management with the conditions that will come to know whether there is a gap of Service Level Agreement in the IT division Operation and Service. The research data is the data report of the company in January - March 2016. The analytical methods used are quantitative methods. The results of the research show that with the improvement of the management problems then help the company achieve SLA originally from level 2 to level 3 so that the quality of IT service companies increased.

Keywords:- *Service Level Agreement, the Information Technology Infrastructure Library Problem Management, IT Service Management.*

I. INTRODUCTION

In the era of digital data, information technology is very important in providing operational support for companies, which is one of the country's IT advocates, which is currently increasing rapidly, therefore business practitioners are starting to realize the importance of implementing a standardization in the field. IT is mainly to improve services both internal and external to the company. There are many benefits that an organization can take when it is able to implement IT in its business processes. IT has become the backbone in facing the competition in the business world. Such as reducing time in delivering services, improving quality, operation To achieve maximum IT services, a planning, implementation, supervision is needed, supported by maximum evaluation. So that problems occur can be resolved quickly. Problems that can occur include, for example, lost data, server downtime, hardware damage, incorrect reports due to problems in data processing which result in incorrect information, inexperienced information technology staff. From the list of problems that can occur in all companies, one technology evaluation is needed Company reliability in IT management affects the quality of IT services within the company, one of which can be measured by using a Service Level Agreement (Service Level Agreement in the Data Center- Edward Wustenhoff). Which will be used as benchmarks for the IT department in mastering and running business processes In providing services to users, IT must also have the right strategy, so that services can be provided optimally In ITIL strategy formulation is carried out in the strategic planning process and usually the planning team that is led by the Head of the IT Division or the IT Manager.

What items are identified and defined in the formulation? The following are aspects that are part of the IT strategy that the company will implement in the future:

1. What services should IT prepare to support the company's objectives,
2. Knowing whom the service will be provided to
3. What components (infrastructure) are needed so that the service can run properly
4. The architecture in each service and all its supporting components
5. Standardization of technology and processes in service operations
6. Priority of all service-related initiatives
7. Employees who are able to manage every service provided

And also what types of services will the IT division perform for their users in the next 3 to 5 years, the strategy design will be carried out in order to achieve a service level agreement, for now, in implementing the service level agreement PT AIA Financial has a target. must be fulfilled so that IT services run well, based on the results of a

questionnaire conducted looking at the conditions of the service level agreement at PT AIA Financial's IT division at level 1 where the results of the questionnaire will be displayed in chapter v, here are the initial targets of the Service level agreement from PT AIA Financial

Aggressive Service Level	The target is running
Server goes down	Maximum 1 event / month
Email is not connected	Maximum 1 event / month
Internet is not connected	Maximum 1 event / month
Hardware / software repair	Maximum of 3 events / month
Backup data and applications	Every day
Bug and Virus Fixes	Maximum of 3 events / month
Application Repair	Maximum 1 repair / 3 months

Table 1. Initial SLA Target from PT AIA Financial
Source: PT AIA Financial IT Operations & Service Division Report Data

The background for writing this thesis is to find out the current level of problem management and its influence on the achievement of service level agreements and future service design from PT AIA Financial's IT Operations and Service Division in order to achieve a service level agreement, starting from January to March there are records. 84 problem reports received by the IT Operations and Service Division, below are detailed data based on the results of the report.
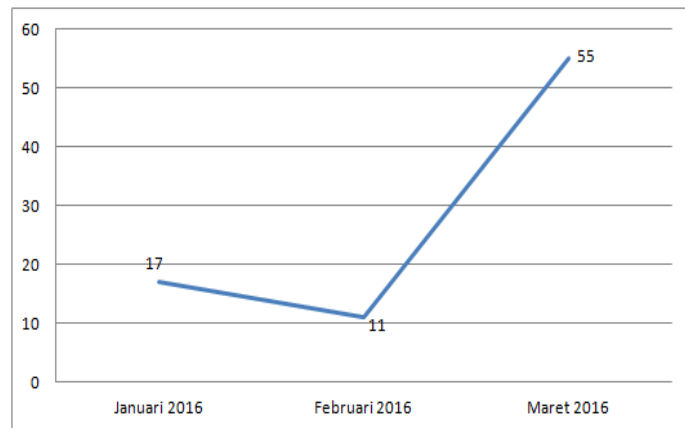

Figure 1. Problem Report Data
Source: PT AIA Financial IT Operations & Service Division data

PT AIA Financial is the largest life insurance company in the world (Based on market capitalization, source: Bloomberg as of December 31, 2015) serving more than 29 million individual policyholders and more than 16 million group policies (aia-financial.co.id, 2016). From the data recorded, AIA has a head office, namely in Jakarta, with 230 agent offices spread throughout Indonesia. With the application of IT technology in its business processes at the head office and at agent offices, it is not certain that companies in IT management have reached a Service Level Agreement.

To find out the extent to which the IT division has the ability to control business processes in carrying out its business processes, measurement is needed in this case using the ITIL (Information Technology Infrastructure Library) so that the maturity level of problem management can be measured.

What items are identified and defined in the formulation? The following are aspects that are part of the IT strategy that the company will implement in the future:
1. What services should IT prepare to support the company's objectives,
2. Knowing whom the service will be provided to
3. What components (infrastructure) are needed so that the service can run properly
4. The architecture in each service and all its supporting components
5. Standardization of technology and processes in service operations
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And also what types of services will the IT division perform for their users in the next 3 to 5 years, the strategy design will be carried out in order to achieve a service level agreement, for now, in implementing the service level agreement PT AIA Financial has a target. must be fulfilled so that IT services run well, based on the results of a questionnaire conducted looking at the conditions of the service level agreement at PT AIA Financial's IT division at level 1 where the results of the questionnaire will be displayed in chapter v, here are the initial targets of the Service level agreement from PT AIA Financial.

Based on the above phenomena, several problems can be identified as follows:
1. There was an increase in problem reports in the IT Operations & Service division of PT AIA Financial from January to March 2016 (Figure 1.1)

2. Time to solve problems that exceeds the SLA set by the IT Operations & Service division (Results of Interviews with IT staff)

II. THEORITICAL REVIEW

➢ *Measurement of the Company's Current Maturity Level*

Measurement of the level of maturity in the IT Service and Operation division of PT AIA Financial was carried out using an IT Infrastructure Library assessment questionnaire or better known as ITSM Self Assessment, interviews were conducted as a data source on the questionnaire assessment.

➢ *Measurement of Problem Management Performance*

To get the required information, a matrix is made with the aim of seeing and identifying the extent of problem management in the Operational IT Department of PT. AIA Financial in order to improve service quality and achieve SLA.

Target				Question 1	Matric 1
Purpose	**Discussion**	**Object**	**Viewpoint**		
Improvement of service capabilities in accordance with the SLA target	*Service Level Agreement*	PT AIA Financial's IT Service and Operation Division	PT AIA Financial's IT Service and Operation Division	What is the number and percentage of cases that exceed the target completion time agreed upon in the SLA?	The number of cases resolved exceeded the set time limit
				Question 2	Matric 2
Improvement of service capabilities in accordance with the SLA target	*Service Level Agreement*	PT AIA Financial's IT Service and Operation Division	PT AIA Financial's IT Service and Operation Division	What is the percentage of handling that is in accordance with the targets agreed in the SLA?	Percentage of problem handling in accordance with SLA

Target				Question 3	Matric 3
Purpose	**Discussion**	**Object**	**Viewpoint**		
Improvement of service capabilities in accordance with the SLA target	*Service Level Agreement*	PT AIA Financial's IT Service and Operation Division	PT AIA Financial's IT Service and Operation Division	How many cases were the handlers not included in the SLA?	The number of services that are not covered by the SLA

Table 2. Problem Management Performance Matrix
Source: PT AIA Financial IT Operations & Service Division data

➢ *Matrix 1 (M1) The number of cases resolved beyond the time limit set*

1. Matrix Description:
Settlement of cases in the IT Operation and Service division that has passed the predetermined time limit

2. Detailed Description:

$$\frac{\text{The number of cases that passed the target}}{\text{Number of reports}} \times 100\%$$

Source: JournalITSMF: An Introductory Overview of ITIL V, 2007

3. Validation:
The measurement will map the problems faced, in solving the problem requires a standard time for solving certain problems, SLA management can be said to be a vulnerable condition if the problem solving exceeds the set time target. With a hazard value> 20%

➢ *Matrix 2 (M2) Percentage of problem handling in accordance with SLA*

1. Matrix Description:
Settlement of cases in the IT Operations and Service division in accordance with the Service Level Agreement

2. Detailed Description:

$$\frac{\text{Number of SLA-compliant cases}}{\text{Number of reports}} \times 100$$

Source: JournalITSMF: An Introductory Overview of ITIL V, 2007

3. Validation:

The measurement will produce a percentage of case resolution with a target that is in accordance with the Service Level Agreement, as long as IT Operations and Service can finish within a predetermined time limit, the service has fulfilled the Service Level Agreement, but if it gets below the hazardous value then it needs more handling. deep. With a hazard value <75%

Matrix 3 (M3) Number of services not covered by SLA

1. Matrix Description:

Settlement of case services at the IT Operations and Service division that do not discover SLA

2. Detailed Description:

$$\frac{\text{Number of cases not covered by SLAs}}{\text{Number of reports}} \times 100\%$$

Source: JournalITSMF: An Introductory Overview of ITIL V3, 2007

3. Validation

The metric used identifies the number of Services that are not covered by the SLA. This shows that if there are more and more services that are not covered by SLAs, it is also very dangerous for SLM management conditions, especially in the initial goal, namely accommodating SLAs. from upstream to downstream

III. RESEARCH METHODS

This research is a type of quantitative research that can be used to examine certain populations or samples, sampling techniques are generally carried out randomly or randomly, data collection using research instruments, statistical data analysis with the aim of testing predetermined hypotheses. The research method used is in accordance with the objectives and problems in this study, so the method used is a correlational research method

RESEARCH VARIABLE

The operationalization of the variables in this study is intended to facilitate or direct the necessary data measurement tools based on the research conceptual framework which has proposed the operational limitations of each research variable. In this study, there are two independent variables. Independent variables are variables that cause or change / influence other variables (Siregar, 2014). The variables used and their meaning in this study, namely

1. Maturity level (X) is a method for measuring the level of management development, and it can also be said to be a measuring tool for the management capability of a business process. In this study, problem management maturity level.

2. *Service Level Agreement*(Y) is a form of elaboration of a provision containing an agreement on the availability of the quality of a service, which is binding between the service provider and service users in presenting and receiving a level of service quality. The agreement format can change depending on the agreement.

IV. RESULTS AND DISCUSSION

As an insurance company in Indonesia, information technology is an important part of the company. Business changes are so fast changing, the demand for the needs and changes in information technology are many and fast, both systems and infrastructure. PT. AIA Financial uses ITIL V3 as one of the Best Practices in implementing Service Management. In implementing Service Level Management, AIA Financial has several objectives including:

1. Business process flows became clearer.
2. Providing the needs to support business processes in the company
3. Make a measurement parameter based on the performance that is done
4. Documentation of business processes becomes more complete and clear
5. IT problem solving can be resolved quickly

In this study, a discussion was conducted with the manager in order to maximize the future goals of the IT Operations and Service division. According to Taylor, incident management is all events that are not part of or outside of standard service operations that cause or can cause a disruption, a decrease in the quality of the service. It is the same as what is conveyed.Based on these definitions and the results of data observations and field conditions, it can be concluded that the factors that cause incidents and causes of problems can be grouped as follows:

1. Forceful circumstances: natural disasters, riots, earthquakes and building fires. For example, there was a fire in the office area which caused office equipment including IT equipment to be damaged.
2. Causes from third parties. For example, the internet is disconnected because the internet provider is experiencing problems
3. Software. For example, computer devices are exposed to virus attacks, instability in the use of pirated software or user negligence in use.
4. Hardware, for example damage to devices due to age, hardware repairs that are not in accordance with the permitted rules.
5. User / user. For example, the use of hardware that is not in accordance with the regulations, the negligence of the user in operating the application.
6. IT staff. For example, errors in making applications, negligence in handling interference.

In carrying out the operations of the IT division, it cannot be separated from the SLA (Service Level Agreement) or the existing service level agreement between the IT division as a service provider and IT service users as service users. The items on the SLA are determined by the IT division and based on management review meetings held for each quarter, the targets that must be met are determined based on the policies taken by the management of PT AIA Financial. The following is the SLA from the IT Operations division of PT AIA Financial.

Aggressive Service Level	The target is running	Upcoming target
1) Server goes down	Maximum 1 event / month	0 events / month
Email is not connected	Maximum 1 event / month	0 events / month
3) Internet is not connected	Maximum 1 event / month	0 events / month
4) Hardware / software repair	Maximum of 3 events / month	0 events / month
5) Data backup	Every day	Every day
6) Repair applications and Viruses	Maximum of 3 events / month	0 events / month
7) Improvement Ideas	Drink 1 idea / 6 months	Minimum 1 idea / 3 months

Table 3. PT AIA FINANCIAL SLA
Source: SLA, PT AIA Financial's IT Operations & Service Division

The use of SLA by the IT division has been implemented since 4 years ago and there have been several changes in targets based on management review meetings. The following is an explanation for each SLA at PT AIA Financial based on the table above:

1. Server cases are down with an upcoming target of 0 cases per month. The SLA that is measured is the occurrence of servers going down for each month. To avoid server problems, the IT division must maintain regularly so that the server does not go down.
2. Email cases drop with a target of 0 cases per month. The SLA that is measured is the occurrence of down or email server going down for each month. In this case, the IT division must maintain the performance of email and email servers to prevent and avoid email disruptions or email server downtime.
3. Internet cases with a target of 0 cases per month. SLA that is measured is the internet incidence per month. For this reason, the IT team is required to improve the performance of the internet and its devices, this is intended to prevent and avoid internet disturbances so as to disrupt business process activities.
4. Repair hardware and software more than 3 days with a target of 0 cases per month. Measurable initial SLA is incident management with a treatment period of 3 days / month. To improve the performance of hardware problems should be resolved in less than 3 days
5. Implementation of data backup for each day. Measured SLA is the implementation of backups for all data and applications that are carried out every day. The IT Division regularly performs data backup processes, in order to avoid the risk of data loss
6. Handling of viruses and application disruptions is more than the target of 0 cases for each month. SLA that is measured is the incident of handling bugs and disruptions to applications and databases that are carried out more than 3 working days in a period of 1 month. The IT team is required to supervise individuals who are responsible for resolving bugs, system errors or database disruptions. This is important to do to support the productivity level of other teams who also use IT services

By referring to the SLA in the IT Operations division of PT AIA Financial, measurement of maturity level and performance measurement of problem management will be carried out. Measurement is intended to measure the relationship and influence of the maturity level of problem management on the achievement of existing problem management

TARGET FOR IMPROVEMENT ACTIVITIES
In an effort to increase the maturity level from the initial level, namely level 2 and make level 3 a future target, which according to the Capability Maturity Model Integration (CMMI-DEV) the product team at level 3 has 11 areas, the following are areas that must be implemented in the future by PT AIA Financial

Process Area	Target Activities
Requirments& Development	regular development of the helpdesk application so that it is integrated with SLA
Technical Solution	Documenting techniques for solving every case that occurs
Product Integration	There is an integrated function in the helpdesk application to case solutions and reports for analysis
Verification	Verify submitted cases via the helpdesk
Validation	Able to perform validation for each incident and problems received by IT through the telpdesk application.

Organizational Process Focus	To carry out its business processes, the IT Service and operation division must focus on carrying out obligations within the company.

Organizational Process Definition	All processes in the IT service and operation division are described in the SLA procedure
Organizational Training	Conducting training both for users and for the IT service and operation division.

Process Area	Target Activities
Integrated Project Management	Integration and management of both projects and ideas in the IT service and operations division
Risk Management	Carry out risk mapping of the cases that occur
Decision Analysis and Resolution	Whenever there is a case that is considered critical, the solution is done by means of an analysis method for every decision making

Table 4. Target of Improvement Activities
Source: Journal Office of Government Commerce, 2008

REPAIR

By paying attention to the level of achievement of PT AIA Financial's maturity, several steps will be formulated in an effort to improve the handling of PT AIA Financial's IT division problems. The following are the implementation steps:

1. Increased use of existing helpdesk applications
2. Improve problem handling process
3. Increase the maturity level of problem management which was previously level 2

Implementation depends on the IT division of PT AIA Financial which advice will be implemented first

IMPROVING THE USE OF THE HELPDESK APPLICATION

In its business process, the IT division of PT AIA Financial has a helpdesk application to facilitate service in problem management, here are the current conditions that can be done with the helpdesk application

1. The helpdesk application is connected to the outlook email so that when a user reports a problem, the report will be forwarded to an outlook email to the IT staff.
2. The helpdesk application is web-based so that the application can run on different operating systems

PROBLEM HANDLING PROCESS FLOW IMPROVEMENT

Based on the analysis of the problem handling process flow before repairing, improvements can be made by making improvements and maximizing the use of the helpdesk application, here is an improvement in the problem handling process flow
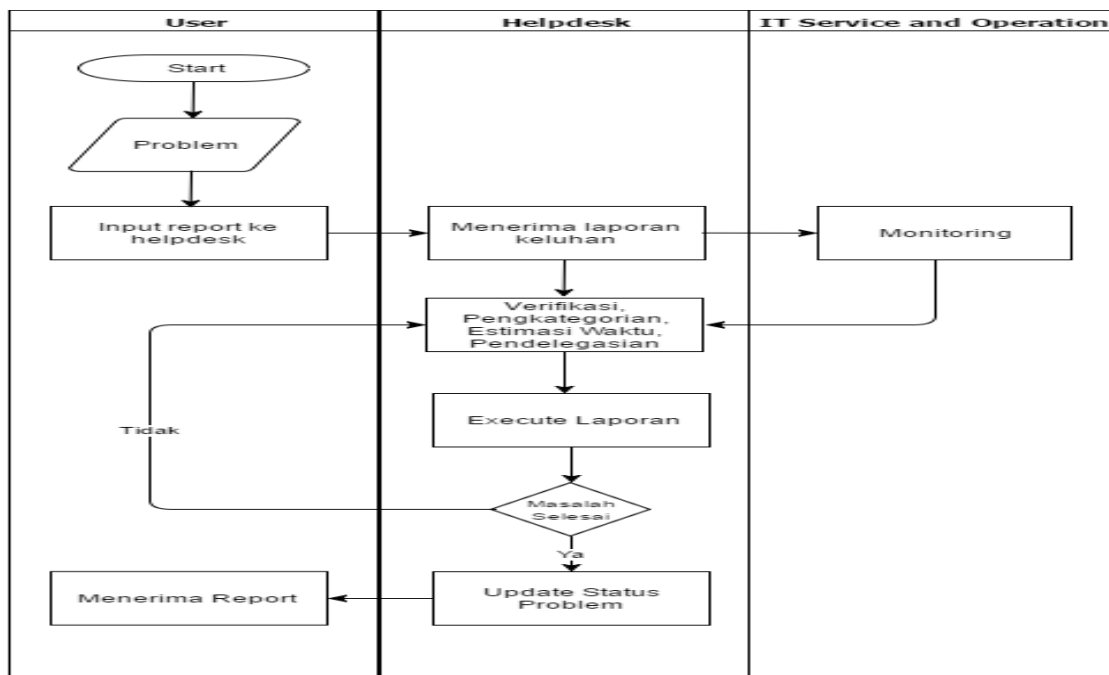

Figure 2. Flowchart of the Problem Handling Process
Source: PT AIA Financial IT Operations & Service Division data

PROCESS AREA OF DEATH LEVEL REPAIR

In terms of increasing the SLA from level 2 to level 3 there are 11 processes according to Capability Maturity Model Integration (CMMI-DEV), here are 11 target stages that can be done to increase the level of maturity

1. Requirements Development.
This stage of the process aims to analyze users, products, and elements of the product that are expected in the future (CMMI-DEV). In this case the IT division improves the function of the existing helpdesk application which aims to increase the use of the application function so that the service level agreement is reached. The strategy to improve the helpdesk application that must be done by the IT division of PT. AIA Financial is as follows:

- Improvements by adding a report feature aimed at the IT division of PT AIA Financial, which aims to collect information which will be used as a strategic step in the future regarding service level agreements.
- To increase the level of IT services in terms of hardware maintenance, on the user side, the hardware request feature is added in the helpdesk application where currently hardware requests are still being made using a manual form, for features on the IT division side can be integrated with the vendor request application, so that when the user experiences hardware damage, he can immediately make a request to the vendor, be it handling by providing loans or replacing hardware that is damaged

2. Technical Solution
The stages of this technical solution are for the design, construction and application of the completion requirements (CMMI-DEV), at this stage the IT division of PT AIA Financial technically documents the service, including:

- Solution documentation in the form of an FAQ
- Technical stages of installation and disruption of software
- The technical stages of installation and interference with hardware
- Standard stages of handling problems

3. Product Integration
This stage of the process aims to explain a series of products such as product components, product integration, functions and results of the product. This process stage is related to the requirements development process stages. Which has been explained in the process regarding adding helpdesk features and integrating helpdesk applications with vendor requests, this is aimed at achieving SLAs, the following is a process flow that can be described from product integration
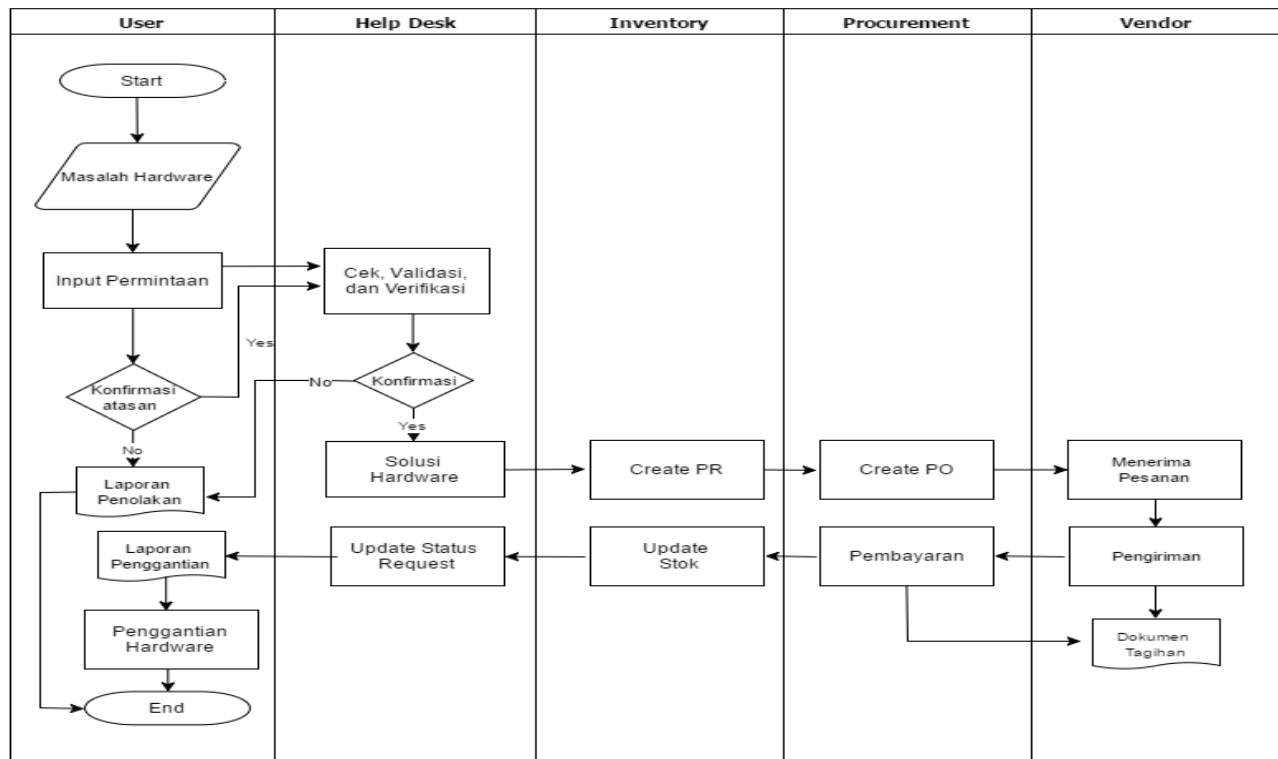

Figure 3. Vendor Request Flowchart
Source: PT AIA Financial IT Operations & Service Division data

4. *Verification*

This stage of the process has the aim of ensuring that the services provided are in accordance with requests by the user (CMMI-DEV), this verification stage is carried out in the helpdesk application, there are 2 sides of verification, namely from the user and the IT Team, here are the explanations:

- Varification from the user side

Verification from the user side is carried out when the user has received the desired service and gets a solution that has been categorized through the helpdesk application, in this verification there is feedback on the services performed and user satisfaction with the solution to the problem provided.

- Verification from the IT Team

Verification from the side of the IT Team is carried out when the user has submitted a complaint through the helpdesk and is accommodated by the IT team. The verification process is carried out includes categorization of problems, estimated time of completion, providing written problem solving solutions through the helpdesk application, and delegating the appropriate person in charge of the cases to be resolved.

5. *Validation*

This stage of the process has the aim of providing information that the service components have been fulfilled, implementing validation (CMMI-DEV), in the IT division of PT AIA Financial itself, namely by monitoring the process of handling and reporting the results of problem handling and monitoring the status of hardware requests to vendors. The application of the validation process also exists in the helpdesk application where when a user reports on the helpdesk application, the user's superior will receive a report related to the report that the user reports.

6. *Organizational Process Focus*

This stage of the process has the objective of planning and implementing a business process improvement process based on a thorough knowledge of the strengths and weaknesses of the processes within the organization (CMMI-DEV). At this stage the head of the IT division continuously carries out the process of monitoring, briefing and encouraging IT staff to stay focused on implementing incident management and problem management. The weaknesses of the IT division can be immediately overcome with the following steps:

1. Making documentation regarding the handling and prevention of problem handling as well as improving the SOP
2. In improving soft skills and hard skills in an effort to solve problems, internal training in the IT division must be carried out regularly

7. *Organizational Process Definition*

This stage of the process has the objective of preserving the company's assets, with the maintenance of assets, it is possible to add better and consistent performance for the company and provide long-term benefits for the organization (CMMI-DEV). In its implementation, the IT division implements the functions and duties of each sub-division to provide added value to the organization's business. This is related to clear job descriptions for each member, for example, the tasks of the helpdesk and technical support teams become clearer and not double jobs.

8. *Organizational Training*

This stage of the process has the aim of developing the skills and knowledge of the IT team so that they can perform their roles effectively and efficiently (CMMI-DEV). In its implementation, the IT division conducts training both internally and externally. Internal training is focused on improving skills in problem solving and achievement of SLA, while external training aims to increase knowledge along with developments in the world of information technology.

9. *Integrated Project Management*

This stage of the process has the goal of compiling and managing the project based on interrelated stages and according to the standard process organization (CMMI-DEV). In its implementation, the IT division embodies the idea of continuous improvement every 3 months. Any project management requires IT investment and involving vendors will be done following a plan, do, check, action pattern.

10. *Risk Management*

This stage of the process has the objective of identifying potential problems before they occur, so that the risk of problems that arise can be handled appropriately, which aims to reduce the negative impact on target achievement (CMMI-DEV). In its implementation, the IT division produces a mapping documentation related to critical problems along with problem solving and prevention analysis. Problem management documentation comes from all events or problems that have been encountered.

11. *Decision Analysis and Resolution*

This stage of the process has the objective of analyzing decisions made by evaluating against the established criteria (CMMI-DEV). After the application of the reporting system in the helpdesk application, all problem handling activities can be monitored and analyzed as needed, for example, namely analysis of a problem that often occurs, and can help achieve SLA because it is clearly accommodated from upstream to downstream.

MEASUREMENT OF DEATH LEVEL AFTER REPAIR

The measurement of maturity level was carried out again after improvement, still using the same matrix when measuring the previous maturity level, namely by using the ITSM Self Assessment which is intended for problem management.

Measurement of IT Infrastructure Library After Repair

No.	Level 1: Pre-requisites	Yes (Y) / No (N)	Score
1	Are all issues recorded in the problem report?	Y	2
2	When there is a problem the help desk classifies the problem before assigning it to the IT team?	Y	1
3	Does the IT manager manage every problem?	Y	2
			PASS
No.	Level 1.5: Intent Management		
4	Is the organization committed to reducing the impact of the incident and timely resolving it?	Y	2
5	Is there a budget for incident management?	Y	2
6	Is management aware of the priority priorities for handling problems?	Y	1
7	Is there a help desk training program?	Y	1
			PASS

No.	Level 2: Process Capability		
8	Does the database record all the problems in detail?	Y	4
9	Is incident management carried out in accordance with the SLA?	Y	4
10	Is there a procedure for classifying problems?	Y	4
11	Is there a procedure for monitoring the progress of problem solving?	Y	4
12	Is there a procedure to provide services to users to monitor the progress of complaints?	Y	4
13	Is there a procedure to cover incidents?	Y	4
14	Does management provide information that is useful for solving problems?	Y	1
15	Does management use vendor support to solve problems?	Y	1
16	Does the manager coordinate the	Y	1

No.		Yes (Y) / No (N)	Score
	team when there is a big problem?		
17	Is there a workload for everyone in dealing with a problem?	Y	1
			PASS
No.	Level 2.5: Internal Integration		
18	Does the problem database match the problem?	Y	2
19	Does management inform you of what problems usually arise?	Y	1
20	Is any problem identified the cause of the problem?	Y	1
			PASS

No.	Level 3: Products		
21	Are all problem reports maintained?	Y	3
22	Is there a request for the procedure?	Y	3
23	Is there a record of cases that have been resolved in detail?	Y	3
24	Is there a report on the case and who handled the case?	Y	1
25	Is there a workload report for employees who handle problem cases?	Y	1
26	Does management review problems that have been resolved in detail?	Y	1
			PASS
No.	Level 3.5: Quality Control		
27	Are there standard criteria for problems that are informed when the user wants to ask for treatment?	Y	2
28	Does the SLA cover all the problems that arise?	Y	2
29	Is there someone in charge of dealing with a complex problem?	Y	2
30	Does management set and review targets and cases handling?	Y	1
31	Is there an application that supports case resolution?	Y	1
			PASS
No.	Level 4: Management Information		
32	Does the team provide reports to management on case trends that occur regularly?	N	0
33	Does the team provide reports to management regarding an increase in cases?	N	0
34	Does the team provide a report	Y	1

	to management on the percentage of case handling?		
35	Does the team provide a report to management regarding the percentage of case handling without any help from other teams or vendors?	N	0
			FAIL

No.	Level 4.5: External Integration		
36	Are there frequent regular meetings regarding problem handling?	N	0
37	Is there an application to communicate between the help desk and management?	N	0
38	Has anyone shared information with other departments regarding problem management?	N	0
39	Are there reports to other departments on how to solve problems?	N	0
40	Has management received reports on changes to business processes to solve problems?	Y	1
41	Has management received a submission report regarding changes in business processes related to problem solving?	Y	1
42	Is there a commitment from management regarding the concern on implementing SLA?	Y	1
			FAIL
No.	Level 5: Customer Interface		
43	Is there a check on user activity in support of problem solving?	N	0
44	Do users feel helpful in solving problems?	Y	1
45	Is there any monitoring of user satisfaction trends?	Y	1
46	Is there an agenda regarding sharing information with users regarding problems that may arise?	N	0
47	Is there any monitoring of the user regarding the value of the services the team provides?	N	0
			FAIL

Table 5. Measurement of the IT Infrastructure Library
Source: Researcher Data

Based on the results of the measurement of the maturity level listed in the table, it is concluded that there is an increase in the level of maturity in the AIA Financial IT Division, an increase from level 2 to level 3. This measurement makes the parameter that most changes from the proposed process can be implemented and run well.

MEASUREMENT OF PROBLEM PERFORMANCE AFTER REPAIR

The matrix used is still the same as the previous matrix, namely the problem management matrix, performance measurement is carried out using interviews and observations to the head of the IT division and staff who interact directly with problem solving, from the measurement results after the improvement, the following results are obtained:

ACHIEVEMENT OF PROBLEM MANAGEMENT PERFORMANCE MATRIX

No.	Matrix	Acquisition value	Vulnerable Value	Information
	The number of cases resolved exceeded the set time limit	17%	> 20%	**Reached**
	Percentage of problem handling in accordance with SLA	77%	<75%	**Reached**
	The number of services that are not covered by the SLA	4%	> 5%	**Reached**

Table 6. Obtaining Problem Management Performance Matrix
Source: Researcher

V. CLOSING

The final stage of writing this research is to conduct discussions with all components of the IT Operations & Service Division. Discussions were held with the aim that the IT Operations & Service division was able to increase the SLA achievement in accordance with mutually agreed targets, as well as bring PT. AIA Financial to standardize IT service quality and continuous improvement in the IT Department. The discussion discussion is as follows:

1. Improvement of the helpdesk application that is realtime and integrated according to the author's suggestion. From the results of the discussion, it was stated that improvements to the helpdesk application have been made and implemented. From the improvements made, it was found several important things that support the improvement of SLA performance:

- Added a reporting feature aimed at the head of the IT Service & Operations division which aims to obtain the information needed to determine further strategies. The results of this information can also be used to evaluate the performance of staff in the IT division in order to find out the obstacles and problems faced in carrying out their duties and responsibilities.

- Provide training to users and IT staff on the use of helpdesk applications, especially those related to SLA. Users are given training and advice to maximize the use of the helpdesk application compared to directly contacting IT via telephone.

2. With the revised Standard Operating Procedure (SOP), it has been very helpful for IT staff to support the improvement of SLA. The following are things that the IT Department has done in carrying out these SOPs:

- Increase human resources to the number of technical support staff (for the number still in the discussion stage with HRD)

- Procurement of hardware for backup when used is a hardware failure that requires quick handling so that it will not interfere with user performance and achievement of the IT Department's SLA.

- Enabling the SLA function to the fullest by setting the performance success rate for each available service in order to achieve an SLA with service coverage from start to finish so as to allow better relations between the IT division and users for consideration in decision making, support and services

3. Increasing IT resources through training and sharing knowledge is one of the causes of problems, namely in human resources and the work environment due to the absence of internal training in the organization.

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