Information Technology Services in Area Service Operations Based on ITIL V3 2011: Measurement Results

Ardi Maulana, Ahmad Nurul Fajar

Abstract- Evaluation of IT services at PT. Tower Bersama group includes 5 processes in the service operation that is Incident management, Problem management, event management, service fulfillment and access management. based on the evaluation that has been done management can know the process that is still not good and get proposed improvement based on evaluation results.

Keywords : Evaluation; Service Operation; IT service.

I. INTRODUCTION

PT. Tower Bersama Group (TBG) is a company engaged in telecommunication infrastructure. With growing business and competition in the business world so fierce, it cannot be denied that IT plays an important role to the progress of a company. Companies that want to go ahead must have good IT governance especially in IT Service Delivery department because it serves to provide IT services in PT. Tower Bersama Group. IT Information Library (ITIL) is a framework composed of five main domains: Service Strategy, Service Design, Service Transition, Service Operation, and Continual Service Improvement. ITIL describes a set of best practices for Information Technology Services Management (ITSM), ITIL provides a framework for information technology governance and information technology services controls that focuses on continuous measurement and improving the quality of information technology services from both a business perspective and a customer perspective[3] IT Division of PT. Tower Bersama Group has started to adopt ITSM which refers to ITIL best practice.

Problem Statement
- To what extent is the maturity level of IT Service Operation at PT. Tower Bersama Group?
- How to provide repair recommendations that can be applied in PT.Tower Bersama Group special area Service Operation?

Objectives and Benefits
Knowing how far the maturity level of IT Service Operation

in PT. Tower Bersama Group.

II. RELATED WORKS

Service Delivery

Service Delivery is a set of managerial processes that focus primarily on the customer of all IT services, ensuring that IT services can be used in their function to support business activities. Just as a customer of an Internet access service, he / she always with the quality of access, related to how much bandwidth is acquired, availability and ease of access at anytime and anywhere, access prices and other facilities of membership to an internet service provider.

ITSM (IT Service Management)

[9] ITSM can be defined as an approach to IT operations that is characterized by an emphasis on IT services, customers, Service Level Agreement, and handling IT functions from everyday activities through the process. [3] defines ITSM as a set of special abilities of the organization to deliver value to customers in the form of services.

ITIL V3

The Information Technology Infrastructure Library (ITIL) was developed in the late 1980s by the British government to document the success of an organization in applying approaches to service management. In the 1990s the British administration had a collection of Best Practices' documentary books on a range of management procedures that could be applied to improve the quality of IT service management. The collection of books is compiled and made into a book entitled IT Infrastructure Library (ITIL). Today ITIL has been accepted worldwide as a de facto standard in service management. The ITIL framework has been proven to be used across all organizational sectors through the many service management firms that adopt ITIL as a foundation in consulting, education and software support.

Service Opeartion

The IT helpdesk or service desk is part of the service operation on ITIL. Service operations involve coordination between the implementation of the activities and processes necessary to provide and manage services for users with specified and agreed service levels. Service operations are also responsible for managing the technology required to provide and support services. From ITIL V3 material sources the process of service operation consists of:
- Incident Management
- Event Management

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- Problem Management
- Service Fulfillment
- Access Management

Maturity Level

Maturity Level or maturity level is a system to measure the process of organizational maturity. Most models of maturity are defined through the five levels through which the organization tends to become more competent. The level of maturity consists of indicators that show evidence of organizational capability. Through a model of maturity then we can document the processes of the capabilities of an already known organization with an objective scale. Each level of organizational competence maturity will increase. The approach used is derived from ITGI's maturity software engineering institute model that defines the capability of developing software. This evaluation evaluation uses level 0 (Non-existsant) to level 5 (optimized). A more detailed description of the scale 0 -5 as follows:

- Scale 0: Non - Existent
- Scale 1: Initial
- Scale 2: Repeatable but Intuitive
- Scale 3: Defined Process
- Scale 4: Managed and Measurable
- Scale 5: Optimized

III. RESEARCH METHOD

Formulating Problems and Research Topics

At this stage determined the issues raised in the study. Some of the emerging IT issues take a long time to complete. This led to complaints and employee dissatisfaction over IT services provided by PT. Tower Bersama Group. Therefore, the approach taken in this research is to evaluate IT services based on the ITIL V3 method in order to make improvements in IT services in the future so that the expectation of PT. Tower Bersama Group is on the rise.

Conducting Literature Studies and Research Methodology

The literature study is looking for reference to theories that are relevant to the case or problems found within the organization. A review of the research literature was conducted to study the various theories related to the problem solving framework obtained from the documents related to the research. These documents include documentation of the ITIL V3 framework.

Analysis of Service Operation process under current conditions

At this stage it analyzes the Service Operation process under current conditions in order to know the current conditions and to know the improvements that can be made to the process.

Design of the questionnaire

At this stage create questions that are close to best practice.

Performing calculations (ITIL Maturity Level)

Measuring the maturity level of IT services aims to determine the extent to which the level of IT services in PT. Tower Bersama Group, so management can provide remedial measures for the future. Measurements are made using a questionnaire that is filled by employees of IT Service Operation PT. Tower Bersama Group because IT Service

Operation employees are more aware of the current conditions. Specifically the object of measurement is the processes in the Domain Service Operation: Incident Management, Event Management, Request Fulfillment, Problem Management and Access Management. The approach used is derived from ITGI's maturity software engineering institute model that defines the capability of developing sotfware. This evaluation evaluation uses level 0 (Non-existsant) to level 5 (optimized).

Current Maturity Level

At this stage is to analyze the results of questionnaires that have been filled by respondents in order to know the level of maturity in the current conditions in PT. Tower Bersama Group.

Maturity Level company expectations

In this stage determine the expected maturity level after knowing the current state of maturity to be known Gap that must be fixed.

IV. RESULTS AND DISCUSSION

Current Maturity Level

Value of maturity level or level of IT services in PT. Tower Bersama Group is 1 Initial; Companies have begun to recognize the process of information technology in their companies, there has been no standardization, done individually, and not organized. There is evidence to show that the company is aware of issues to address. There is no standard process; instead there is a special approach (adhoc) that tends to be applied per case. The overall management approach is not yet organized.

From the table, it can generate radar images from the overall Service Operation of ITIL V3 on the running IT services.

Maturity Assesment Output

In the diagram above found the gap of the current condition value to the expected condition value in PT. Tower Bersama Group, where the current condition value at PT. Tower Bersama Group is at level 1: Initial ie Company has started to recognize the process of information technology in the company, there has been no standardization, done individually, and not organized. Value condition expected by PT. Tower Bersama Group is at level 2.

Gap analysis

At this stage the researcher will seek and identify and compare the gap or distance from the result of the maturity value where the system currently running with the expected value using ITIL V3 maturity model.
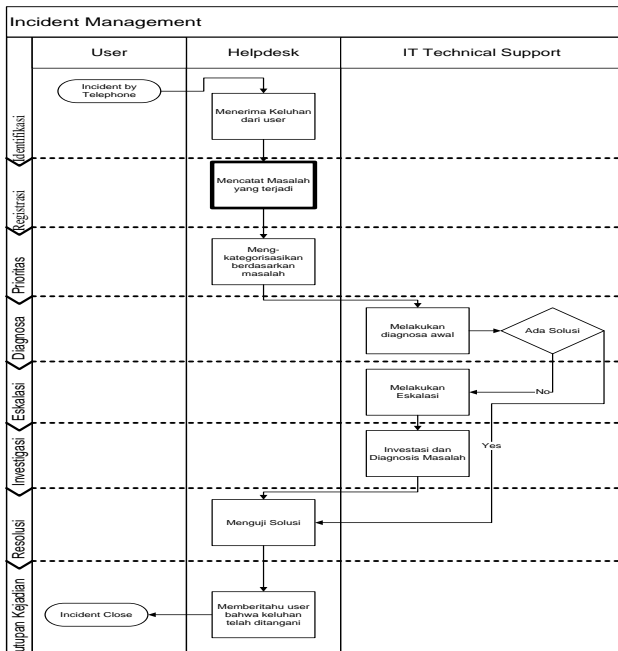
In the picture above is an analysis of current conditions by referring Incident Management process activities. On User Identification activities contact IT Helpdesk by Telephone about the problems that are experienced then IT Helpdesk accept the user's release and provide categories according to the level of the problem. In the Diagnose IT Technical Support process Diagnose early if there is no solution to the problem then enter the escalation stage and in the investigation and diagnosed further, if the solution has been found then tested in the stage of Resolution and IT Helpdesk to inform the user that the problem finished handled.
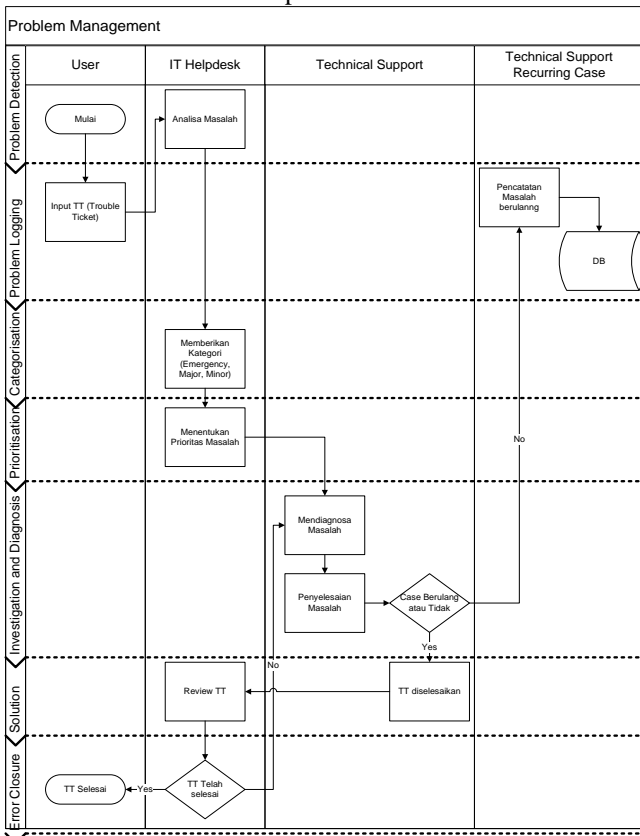
In the picture above is an analysis of current conditions with reference to the process of Problem Management Activities in the company of PT. Tower Bersama Group

when the user experiences TT user input problems in the system, then IT Helpdesk analyzes in the Problem Detection stage, then IT Helpdesk gives category and also priority. After that Technical Support diagnose the beginning of the problem that has been given IT Helpdesk and determine the settlement. In the stage of Investigation and Diagnosis then can be known masalaah is repeated or not, if repeatedly it is recorded in the system that the problem is repeated and in follow-up according to SOP in the Company. If it does not recur then the problem is resolved and IT Helpdsek gives information to the related user. To provide the best IT services in PT. Tower Bersama Group is the main activity of Problem Management process

V. CONCLUSION

This study uses ITIL V3 as the foundation or guideline for evaluation of IT services at PT. Tower Bersama Group.The conclusions that can be drawn on this research are:

1. Level of IT services in PT. Tower Bersama group is currently at level 1 Initial ie the Company has started to recognize the process of information technology in the company, there has been no standardization, done individually, and not organized. There is evidence to show that the company is aware of issues to address. There is no standard process; instead there is a special approach (adhoc) that tends to be applied per case. The overall management approach is not yet organized.
2. Incident Management and Problem Management process is not in accordance with ITIL V3 2011. Need to complete the activities in each - each process is still lacking to support IT services PT. Tower Bersama Group for better.

Suggestions that can be given from this research are as follows:

1. By doing measurements of IT level of IT in PT. Tower Bersama Group needs to have more business for management to increase the level of 1: Initial 2: Repeatable but Intuitive, in order to improve the quality of IT services and can increase revenue for the company.
2. Need support from management to implement process activities that do not yet exist in PT. Tower Bersama Group.

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