

Service Desk in Perspective of Information Technology Infrastructure Library 3rd-Version

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Abstract— ICT services are an essential element in modern organizations. Understanding the workings of service systems with specific frameworks helps manage services well. One of the services in this management is the Service Desk or Helpdesk. This study aims to explain the Service Desk using the ITIL V.3 framework. The method used is descriptive qualitative using relevant references. The results of this study indicate that ITIL V.3 can be used to describe the management of the Service Desk accurately.

Index Terms—service desk, helpdesk, framework, ITIL, technology infrastructure

I. INTRODUCTION

A study that examined the problem of servants provided to users with damage that occurs with ICT services. It is only by phone and not recorded; the weakness is that when workers from the ICT unit are monitoring the unit that is having a problem, no one can accept the issue by phone [1]. For this reason, ICT users in all units need a system such as an ICT service complaint centre. It is better known as a service desk to create the best service and, of course, can facilitate the work of information system officers in monitoring every problem of ICT users in units. Ref. [2] conducted a structural analysis of the Service Desk in Higher Education. This research will assist IT managers, in carrying out an ideal service desk structure to the existing service desk structure conditions based on the ITIL V3 standard. Ref. [3] suggested in the results of her study to develop a system that can measure, assess and improve in terms of better service management. The Service Desk provides a single point of contact for all IT users, typically logs and manages all incidents, service requests, and access requests and provides an interface for all processes of other service operations. Many studies show the importance of a framework for solving various problems in managing IT services in institutions [3]–[5]. Many frameworks can be used. One that is considered simple and can meet the needs in troubleshooting IT services is ITIL V.3. This study explains the use of this framework in service desks globally. Existing descriptions can be used in a variety of other forms of services.

II. METHODS

This study is a qualitative descriptive study based on various references. The main focus of this study is how to use the ITIL framework in the management of the Service Desk. The discussion about the Service Desk is relatively detailed,

explaining this service's process. The following section describes the integration of the ITIL Framework into the Service Desk.

III. RESULT AND DISCUSSION

A. ITIL V3 (Information Technology Infrastructure Library version 3)

ITIL is a framework for managing IT infrastructure in an organization and how to provide the best service for IT service users. ITIL is an IT Service Management Best Practice implemented since 1989. It is the main element and is a consistent and comprehensive model of tested application results in information technology service management so that a company can achieve the desired quality of service support [6]–[8]. Meanwhile, the IT Infrastructure Library (ITIL) is simply a set of practices that people just like you have documented because they work well [8]. ITIL is not perspective because it does not record how to do things. It simply reports what can and should be done. ITIL is a general framework that describes Best Practices in IT service management. ITIL provides a framework for IT governance and focuses on continuously measuring and improving the quality of IT services, rising from the business and customer perspectives [7].

ITIL was published between 1989 and 1995 by Her Majesty's Stationery Office (HMSO) in the UK on behalf of the Central Communications and Telecommunication Agency (CCTA). Now, the CCTA is included in the Office of Government Commerce (OGC). Early use of ITIL was limited to the UK and the Netherlands. The second version of ITIL was published as a set of book revisions between 2000 and 2004. The initial version of ITIL consisted of a collection of 31 related books covering all aspects of providing IT services. This early version was later revised and replaced by seven books, which were more closely related and consistent (ITIL V2), consolidated within the overall framework. This second version is universally accepted. Thousands of organizations use it in many countries as the basis for the adequate provision of IT services. In 2007, ITIL V2 was replaced with ITIL V3, consisting of five core books covering the service lifecycle and The Official Introduction. A success factor of ITIL is the benefits to the organization to gain profit. These benefits include increasing service availability, business profits and revenue, decision-making speed and optimized risk. ITIL has

a service cycle known as the ITIL service life cycle [6]. The ITIL lifecycle contains the iterations in developing an IT service, starting with the analysis of business needs in service strategy and service design, through migration to the operating environment in Service Transition, to operate and improve in Service Operation and Continuous Service Improvement. Of the five ITIL life cycles, you can see the chart in Figure 1.

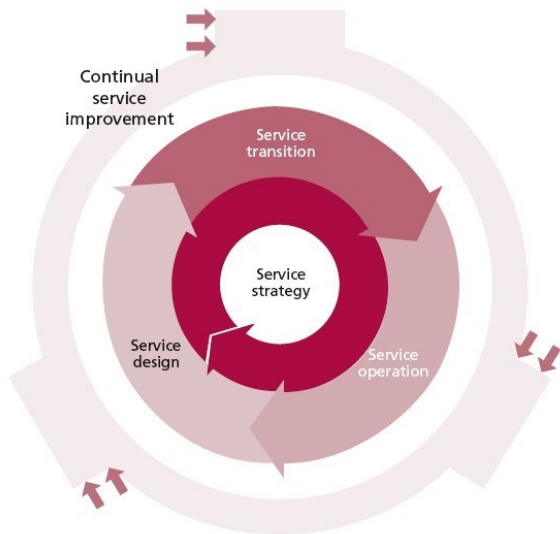


Fig. 1. ITIL V3 Service Cycle.

Figure 1 illustrates the iteration of the ITIL service lifecycle based on the ITIL basics (<http://www.itil-officialsite.com>).

B. Service Desk

The Service Desk serves as the single point of contact (SPOC) between the service provider and user. It means the purpose of the Service Desk is as a bridge of communication between the service provider and the customer [5]. Service Desk implementations vary from organization to organization. The Service Desk is formed to adapt to IT needs in managing incidents and problems in the service. There are several forms of Service Desk, including the following: Local Service Desk, Central Service Desk and Virtual Service [1].

The service desk provides a single point of contact for all IT users. The Service Desk typically records and manages all incidents, service requests, and access requests and provides a user interface for all other service operations processes and activities. A Service Desk is a shop window for IT users, where most users get their first service on IT issues from a service provider [1].

The Service Desk or Helpdesk is the primary communication door for end users if they need help solving problems. Tasks in the Service Desk broadly include: receiving incidents, recording incidents, classification incidents based on priority, category and escalation, finding solutions, providing information to end users about the ongoing process, handling communication with other ITIL processes, reporting to management, process managers and customers related to the performance of the Service Desk or Helpdesk. Without a Service Desk or Helpdesk, a company might face inefficiencies [3].

C. Service Desk Process according to ITIL V3

There are several processes and activities at the service desk. Event Management is an activity carried out to monitor the status of IT services and detect potential events to

determine the service's operational status [9], [10]. The following is the flow of the status monitoring process defined in the event management process shown in Figure 2.

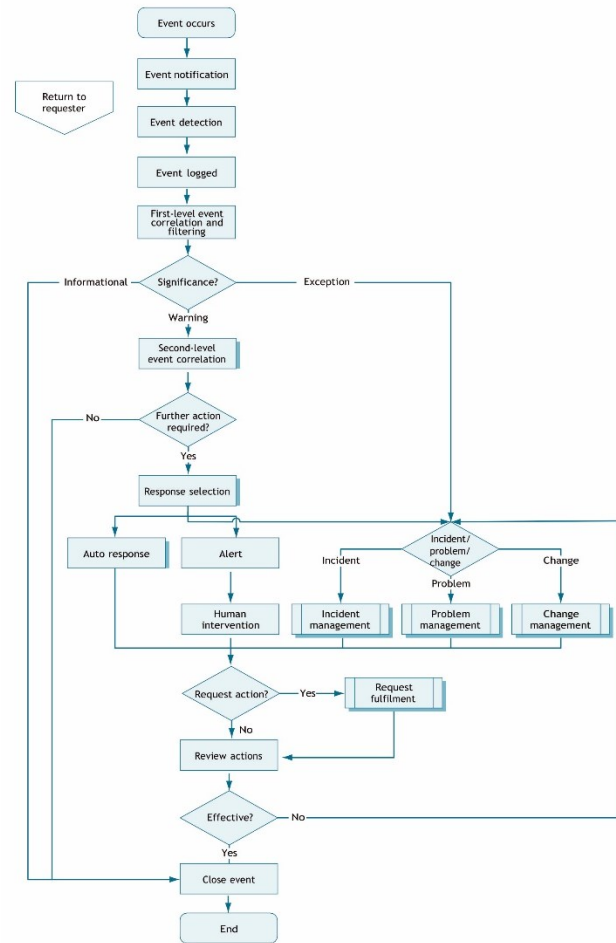


Fig. 2. Event Management Process.

Incident Management is an activity carried out to deal with IT service problems and return them so that they can work according to the level of agreement. The main focus of incident management is an activity to deal with the symptoms of the problem as quickly as possible and solve it. Treatment of symptoms is the handling of the problem that occurs, not the root of the problem. The goal of incident management is to restore IT services to normal conditions as quickly as possible to minimize adverse impacts on IT services so that the quality of services is maintained. The following are the activities carried out, defined in the incident management process shown in Figure 3.

Request Fulfillment is a process to meet user requests related to IT services. User requests for IT services (service requests) can be requests for information, changes to standards or complaints. In the fulfillment request, there are several activities carried out. The action can be depicted through the pipeline shown in Figure 4.

Access Management manages user access rights to the system to provide fairness for users to use IT services, such as defining user profiles and passwords for each IT service system. In access management, there are several activities carried out. The activity can be described through the flow shown in Figure 5.

Problem Management is a process carried out to manage the root cause of service incidents so that the same incident

does not repeat itself and to minimize the impact of incidents that cannot be prevented. In problem management, there are several activities carried out. The activity can be described through the flow shown in Figure 6.

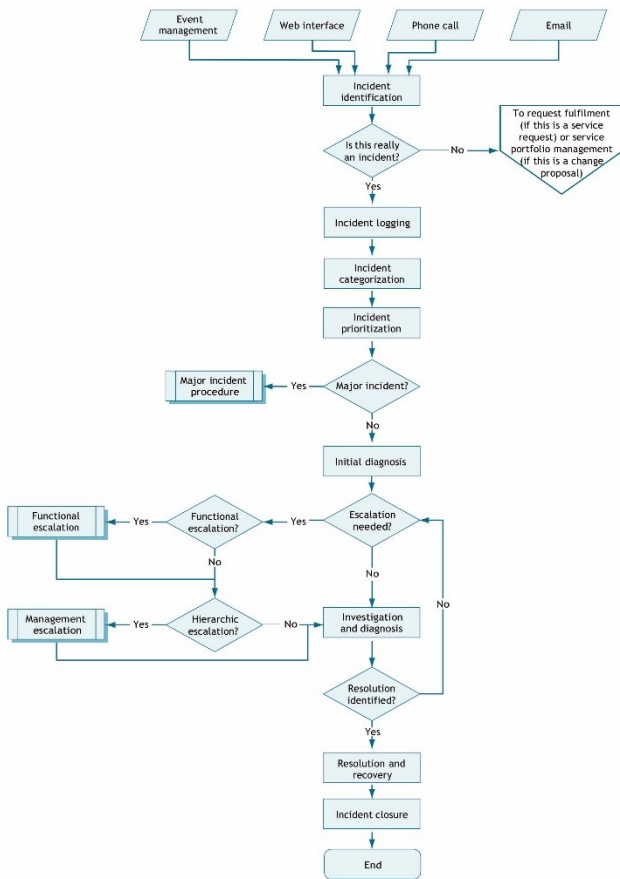


Fig. 3. Incident Management Process.

D. Service Operation ITIL V3

The purpose of service operation is to deliver agreed levels of service to users and customers, and to manage the applications, technology and infrastructure that support the service delivery [11]. The purpose of a Service Operation is to guide the implementation of service operations management. Service Operations deliver service to customers and govern applications, technologies and infrastructure that support service delivery. Service Operations guarantee that the service and value can be provided [7], [12]. The following is the process contained in the Service Operation:

- Event Management. It is a process or activity of detecting abnormality messages to ensure whether the Configuration Item (CI) and the running IT service are continually monitored, filtering and categorizing the status of IT services to perform fast actions.
- Incident Management. It is an incident management process that occurs in IT services so that IT services can be restored to their original state or recovered as soon as possible.
- Access Management. It is a process carried out to grant access rights to IT services to users entitled to access and restrict access for users not authorized to those IT services.

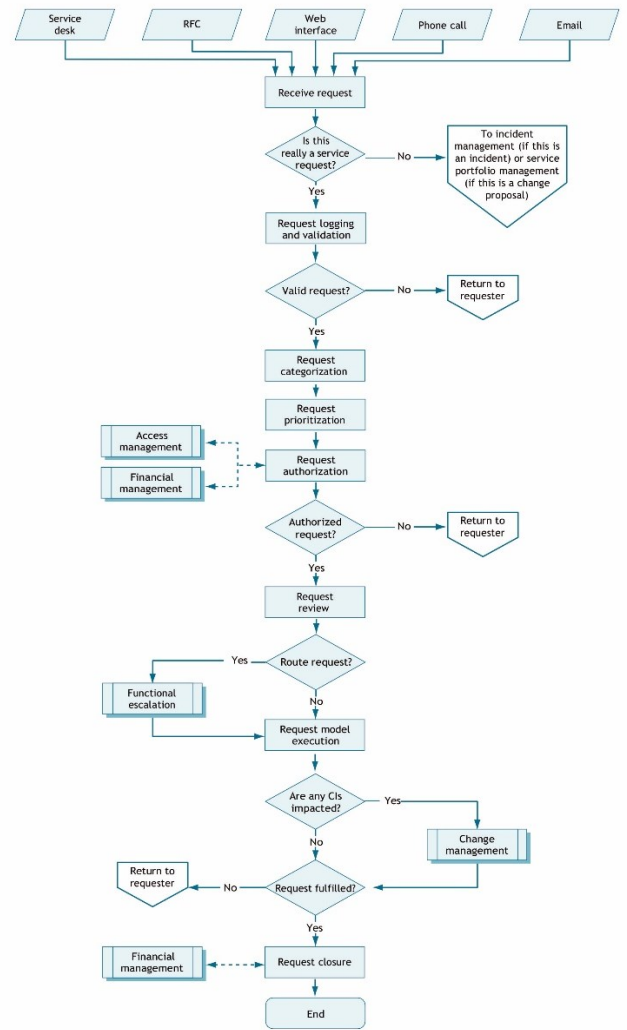


Fig. 4. Request Fulfillment Process.

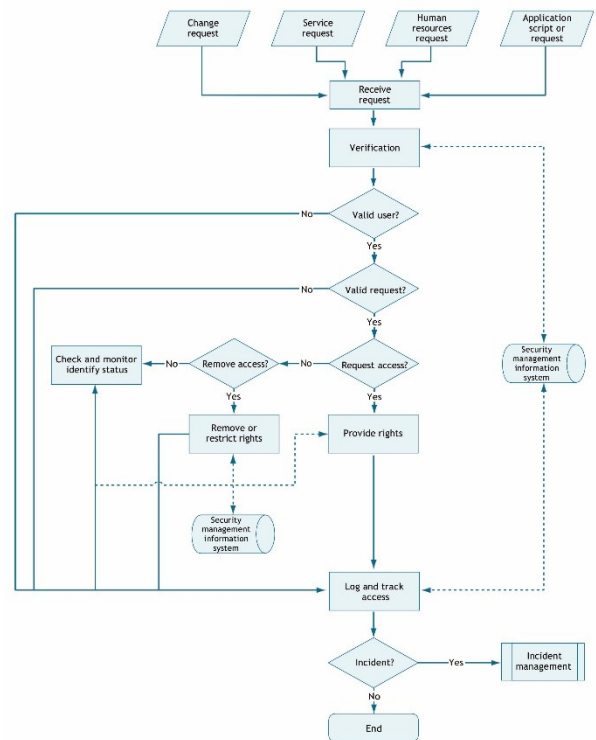


Fig. 5. Access Management Process.

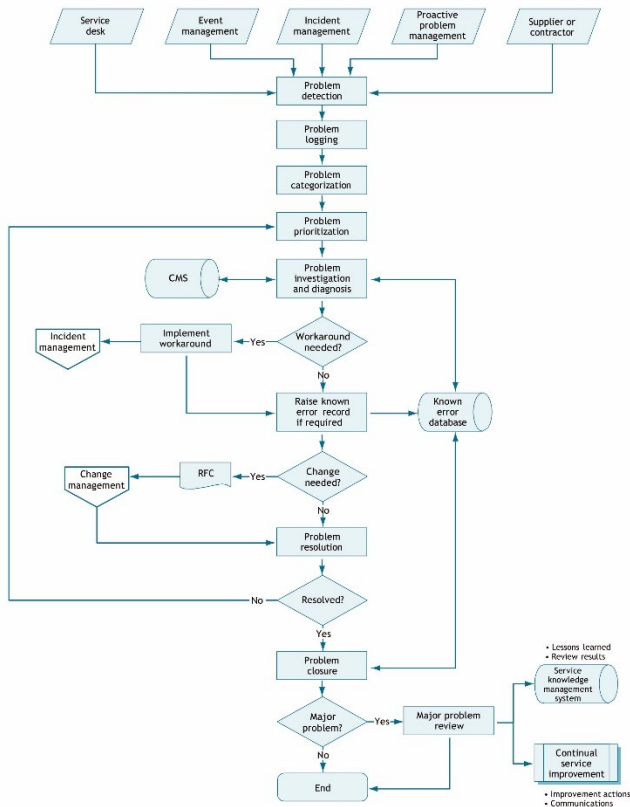


Fig. 6. Problem Management Process.

- Request Fulfillment. It is the process of meeting customer requests for IT services beyond reports related to IT incidents.
- Problem Management. It is a process of managing the root cause of an IT service incident so that the same incident does not repeat itself and minimizing the impact of incidents that cannot be prevented.

IV. CONCLUSION

Effective management of service desk services requires a clear framework. This clear framework supports the process of continuous improvement of the system. ITIL V3 is reliable for viewing business processes on the Service Desk. Various management aspects can be broken down into minor activities to facilitate system management. The results of this study show that ITIL 3.0 is flexible and can be applied to various purposes.

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