Guideline of Identification and Track on Support’s level on Mexican Very Small Enterprises (MVSE)

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Abstract. In this paper we described a solution for the management of Information Technologies (IT) for the incidents and problems in the support’s level services. The solution summarizes the interaction between diverse processes of the Service support’s book on ITIL (Information Technology Infrastructure Library) and proposes a methodology for the implementation sequence on PYMES (abbreviation in México for Very Small Enterprises).

Keywords: Information Technology Infrastructure Library (ITIL); Service Desk; PYMES; MVSE.

1 Introduction

Several methodologies are currently used in the Information Technologies (IT) Industry, one of them is the IT Infrastructure Library (ITIL), who was developed by the UK Government and first initiated in 1989 [1]; this one is focused squarely on service delivery rather than technology specific. Another one is the ITIL IT Service Management (ITSM) approach, based on British Standard 15000, is being used by an increasing number of Australian companies and government departments [1]. These methodologies are briefly boarded in this paper.

ITIL is the most widely accepted approach to IT service management in the world. Providing a cohesive set of best practice guidance drawn from the public and private sectors across the world, it has been used in recent and important project [2]. ITIL defines service management as: a set of related processes for the management and operation of the IT infrastructure, in order to promote optimal service provision to the customer of the services at justifiable costs [3].

Currently, in Mexico the Coordinating Council Business (CCB) [4] is promoting the use of models and methodologies used by large companies with little acceptance by MVSE due to its complexity and high investment in time and resources.

In this paper we described a solution for the management of Information Technologies (IT) for the incidents and problems in the support’s level services. The solution summarizes the interaction between diverse processes of the Service support’s book on ITIL (Information Technology Infrastructure Library) and proposes a methodology for the implementation sequence on PYMES (abbreviation in México for Very Small Enterprises).

To control the IT infrastructure that provides the service, we keep an authoritative, current record of all the components used to provide services. This infrastructure includes hardware, software, communications technology, policies, procedures, contracts, SLAs (Service Level Agreement), skills, roles, and responsibilities necessary to support the provision of IT services. The configuration management process identifies, manages and reports on all these components and their relationships to each other through a single database, the Configuration Management Database (CMDB).

The help desk identifies easy solutions for incidents and informs about how restore the services; incident management identify the incident and prove temporal solutions; problem management fixes the underlying cause and act proactively to prevent further occurrences.
The Change Management approves the changes to solve the incidents or problems detected, it track on the solution and take decisions over the impact and the benefits on the business decisions; the management, implementation or development of new version of Configuration Item (CI) could have problems or generate new ones caused by new requirements in the infrastructure business.

Working on specific guidelines to align Mexican Very Small Enterprises (MVSE) with international standards, we defined a solution to integrate the incidents, problems and technical solutions for taking decisions on business objectives.

In section 2 is the overview to the methodology of service support for Mexican Very Small Enterprise. In section 3 show the Methodology or the Guideline of Identification and Track on Support’s level on Mexican Very Small Enterprises (MVSE). In section 4 shows the conclusions of the investigation.

2 Overview to the methodology of service support for Mexican Very Small Enterprise

The Information Technology (IT) incidents and problems affect business operations if they don’t have a technical standard language and neither procedure to solve the questions referred before about Mexican Very Small Enterprises (MVSE). The direct relationship between the infrastructure of business and IT infrastructure requires a support area to determine the level of service order (formal request for technology service) and prioritize them based on the relationship with the company's main activity and the degree of involvement of the business (Figure 1).

![Figure 1. Identification and track on Support’s level on Mexican Very Small Enterprises](image)

The methodology proposed has 5 steps:

Step 1. Align the IT Objectives on business objective.
Step 2. Configuration’s Management Database.
Step 3. Service support.
Step 4. Identification Support’s level on MVSE.
Step 5. Track on Support’s level on MVSE
3 A methodology of service support’s

The Methodology or the Guideline of Identification and Track on Support’s level on Mexican Very Small Enterprises guide consists of the following steps:

Step 1. Align the IT Objectives on business objective. It’s necessary to identify the business requirements supported on Information Technology (IT) and the negative impact of IT problems on the business operations to prioritize the solutions on solving IT incidents and problems.

Step 2. Configuration’s Management Database. Identify all support Business Configuration Items (CIs) and the related areas to identify the affected activities if a CI has to be change or the business objectives have new service requirements.

Step 3. Service support. The structure of Information Technology Department has been changed to manage the IT service delivery and prioritize the incidents or problems over the impact on business objectives.

Information Technology Infrastructure Library (ITIL) proposes only the interaction between the business areas and support areas (Service Desk). The support areas need an integrated area to define the level support and identify the specific area to solve incidents related with its main objective. The user is the only actor who knows when the solution cans solve his or her problems and if the incident can be closed.

Step 4. Identification Support’s level on MVSE. Service Desk provides basic solutions if it have a register solution for the detected incident (Figure 2), this is the first support level and the only way to interact with support areas.

In this case, if the user believes the solution is correct, service desk applies a quality service questionnaire. Even if the incident can be or not corrected, Service Desk redirect the incident to incident management.

Step 5. Track on Support’s level on MVSE. The Incident is turned to incident management area, in which is needed to do a diagnosis to identify the incident characteristics, classify and assign them a specific role. Considering that the Mexican Very Small Enterprises don’t have a lot of technical people, the incident can be classified on terms of where it could be solved.

![Figure 2. Service Desk](image)
We can identify how the incident could be analyzed and how it could be solved on a specific instance (Figure 3). The incidents and their solutions are classified in databases for future similar incidents.

If the incident can’t be solved at incident management area, the incident returns to problem management (Figure 4). The incident could be come problem because its causes generate new incidents or stops the service.

This area identifies the main causes and errors generated by the problem and those possible solutions or take the correct actions about the problem.

If the problem needs changes on Configuration Items (CIs), the area who takes the decisions is the Change management area (Figure 5). This area analyzes the change impact, and the Committee Advisory Board (CAB) takes decisions over the changes.

Change management area assigns responsibilities on each actor whose interacts with the change and also makes support decisions.
Mexican Very Small Enterprises needs to identify and classify the Configuration Items (CIs) considering the positive and negative problem’s impact over the core business. This classification organize hardware by software to make decisions if some CI is involved on incidents or problems and how it could impact on specific areas related with this CI.

Figure 5. Change Management

Configuration Management area have CI information, including areas involved with the CI, the CI’s responsible and the CI’s status in the Configuration Management Database (Figure 6).

Figure 6. Configuration Management
If a CI have changes on its live time or CI’s responsible can be remove from the institution, the Mexican Very Small Enterprises (MVSE) needs a Release Management (Figure 7) to administer this moves and update the Configuration Management Database (CMDB).

![Figure 7. Release Management](image)

### 4 Conclusions

This guideline for the Mexican Very Small Enterprises (MVSE) contains a methodology for implementing the management best practices over their principal Configuration Items (CIs) and how they can determine the negative impact if a service have troubles; how incidents or problems could impact over the core business and how they can find a temporal solution or made definitive changes to restore the service. This methodology proposes a detailed process for implementing ITIL in terms of a MVSE without having to invest on heavily infrastructure with a change control of services performed in business areas to costing the time and resources involved in their development.

### 5 References


