

Implementing ISO 20000: proposals from learned lessons

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Resumo:

A norma ISO 20000 virá, muito provavelmente, a ter um papel deveras importante no campo da gestão de serviço de empresas da área das Tecnologias de Informação. Contudo, em termos bibliográficos não existem muitos estudos sobre a mesma, devido, essencialmente, à sua juventude.

Este artigo, suportado na implementação da norma ISO 20000 numa Universidade espanhola com mais de 14.000 alunos, tem como objectivo apresentar nove oportunidades de melhoria ao estado actual do referencial. O objectivo das propostas de melhoria apresentadas vão no sentido de aumentar a flexibilidade do referencial, de reduzir as dificuldades associadas à implementação do mesmo, bem como aumentar a satisfação das organizações que o implementam.

Palavras-chave: ISO 20000; ITIL; Gestão de serviço em TI's; Referenciais de gestão

Abstract:

ISO 20000 is a standard that will play, probably, a very important role in the Information Technology (IT) service management field. However, there are not many researches focusing on it, due basically to its short history.

Based on an only implementation, in a University of more than 14.000 students, this article describes nine specific proposals that will improve the standard. All of them have the main objective to have a more flexible standard, reduce implementation difficulties and basically, increase customer's satisfaction.

Keywords: ISO 20000; ITIL; IT Service Management; Management Standards

1. Introduction

All of us living in modern societies are information technologies (IT) services consumers. Some IT services are innovative while others are simply commodities. Some are for business, some make our life easier or more productive and some are for fun. Even some machines use IT services provided by other machines to accomplish their own goals. Nowadays, IT services are everywhere. That is one of the reasons why organizations providing IT services feel the increasing need of industrialize the service provision, in order to achieve those quality level, value added and competitive services that their clients are demanding.

As part of this industrialization process, arises the need to establish management mechanisms to guarantee the quality of those services. As it was done before in other areas, the production of IT services must be managed correctly. This service awareness, and the fact of been a fast growing sector, dragged by a constant innovation need, has driven IT to the construction or adaptation of a management knowledge body. That was how the discipline known as Information Technology Service Management (ITSM) appeared. Research in the field of ITSM has been developed in recent years, adding theoretical support to the practical knowledge, as the reader can review in (Iden & Eikebrokk, 2013).

Within ITSM area, different management standards have been designed, implemented and evolved, whether they are formal or de facto (Cater-Steel, 2009). While each of these standards has his own scope, objectives and own form, it's common to all to define process-based systems. Those systems propose and describe their own set of processes and interfaces between them. Each process in his or her own system is aimed to solve a specific need in the service production, provision or support (Vargo, Maglio, & Akaka, 2008). The resulting systems try to propose more adequate approach and specific solution that the proposed by non-service centric standards. But as we will see, IT services are not substantially different to non-IT services (Edvardsson, Gustafsson, & Roos, 2005).

With the aim of expanding their applicability scope, some of these formerly IT standards are progressively evolving avoiding the use of IT nomenclature or to mention IT at all, trying to position themselves as general purpose service management systems. In fact, some authors defend and describe examples of the feasibility and convenience of applying those systems to produce heterogeneous kinds of services, with minor or any change to the system design.

From this point, this article explains the nature and appropriateness of the service management standard ISO 20000, from the specific experience and perspective of a

management system for the internal IT services of an organization not belonging to the IT sector. After that, it briefly describes the ISO 20000 standard by making first a general picture of the 2011 edition of the standard, and later performs a process-by-process analysis. The process analysis is not intended to detail the requirements of the standard, nor to resume the standard but to give the reader a general idea of the process. Based on this specific case, the article use the review of the processes for making a series of proposals that can improve the management system, or make it more suitable to manage heterogeneous non-IT services.

2. Service Management systems and ISO 20000

ITSM has accumulated a large arsenal of standards so far (Kumbakara, 2008). Although it is sure that some are left behind, some of them are: ITIL®, ISO/IEC 20000, MOF®, ISM Method®, USMBOK®, CMMI-SVC, COBIT, ISO/IEC 27001, LEAN IT, Six Sigma, ValIT, ISO 38500, ISO 31000 or ISO 22301.

Among they all, there is no doubt that ITIL is the worldwide more diffused, and probably the more studied ITSM standard (Winniford, Conger, & Erickson-Harris, 2009; Iden & Langeland, 2010). ITIL has a large base of professionals using it as guidance and even studding and accrediting their personal competence under a personal certification scheme with great success (Tucker, 2012). But ITIL doesn't define a service management system even when you can design a service management system by using its good practices. ITIL® is called a "Library" since it refers to a group of books, which have changed with each version of the standard. ITIL®, intellectual property of the British government's OGC (Office of Government Commerce), developed the standard at the end of the 1980s.

The job of making a standard for service management inspired on ITIL was done by the International Standards Organization (ISO) when, in the year 2005, it decided to adopt the previous British Standard BS 15000 as an international standard called ISO 20000. Even when this purpose is not explicit, the influence of ITIL in the ISO 20000 standard is commonly accepted. ISO 20000 is the only standard that can be undoubtedly qualified as defining the requirements of a service management system. The full name of the standard is ISO/IEC 20000, given that the standard was developed jointly by the International Standards Organization (ISO) and the International Electrotechnical Commission (IEC), but it's commonly accepted in literature and in practice to call in just ISO 20000.

The standard is composed by a set of documents, called parts. Only the part 1 defines the requirements of the service management system, while the rest of parts are complementary to this one. As frequently the part is taken as the whole, the main document is often referenced as the whole standard. So, in this paper, we will specify the exact document or version only where it can contribute to clarity or make a difference.

Actually, ISO 20000 part 1 (ISO/IEC, 2011) is in its second edition, released in 2011. The other parts have been or are in process of been updated to adopt the changes introduced in 2011. As all the other ISO standards that define management systems, ISO 20000 is auditable and certifiable. This characteristic provides an added value to the standard and makes it possible to effectively assert that an organization is using it. This makes possible to assess that an increasing number of organizations worldwide are adopting and using it.

3. ISO 20000 description

First of all it is interesting to introduce the ISO 20000 management standard through a general description of its current 2011 version: ISO/IEC 20000-1. Excluding the introduction, the text is divided into 9 sections with their corresponding sub-sections. The prologue briefly describes who the standardizing organisms are and how they are organized; it also highlights the new additions and changes in this second version. The central subject of the introduction is a reminder that the aim of a management system is to define the design, transition, provision and improvement of services that satisfy the requirements and provide value, whether to clients or to the service provider itself.

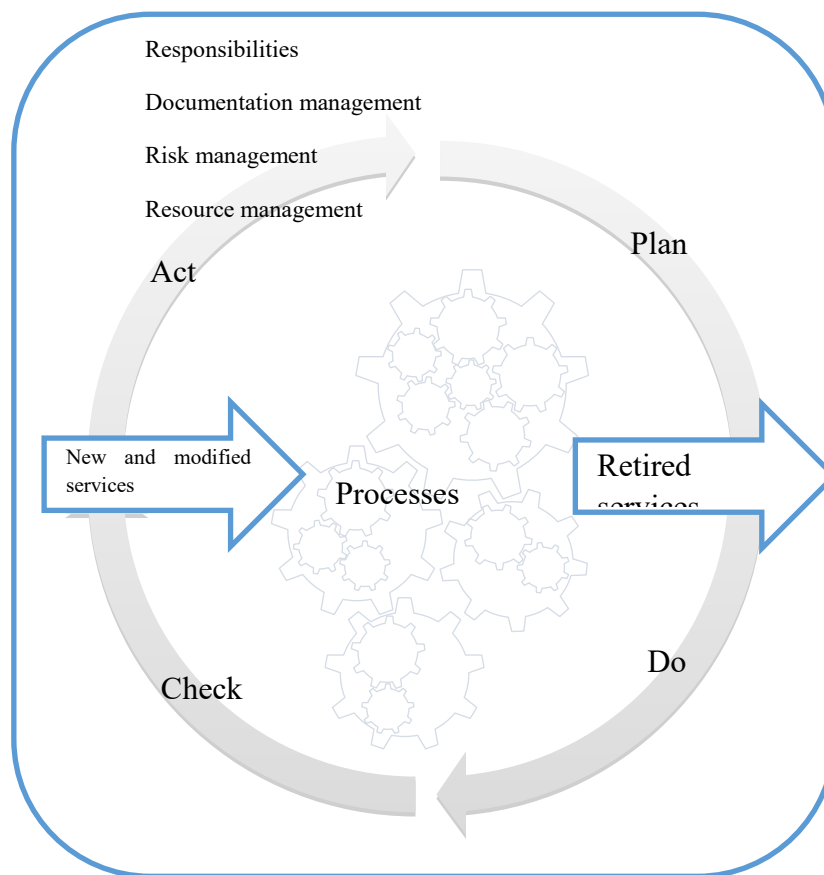
As with the other ISO standardized management systems, this standard is characterized by the definition of a set of processes that are specifically oriented towards the compliance of the specific standard - in this case service management -, some general requirements and a system of continuous improvement based on the Plan-Do-Check-Act, or Deming, cycle (Deming, 2000).

The first section of the standard defines its scope; that is, who should use the standard and for what. It is relevant here to note that, from this section on, the current 2011 version has omitted the specific references to IT contained in the previous 2005 version. The standard's aim is, therefore, to define a service-management system that is applicable to the whole range of service management, extending beyond the original IT field. An example of this is its

application to Higher Education services (Lezcano, Adachihara, & Prunier, 2010). The standard's second section contains only normative references.

The third section, regarding terms and definitions, has lengthened considerably with respect to the previous version. It is of great importance given that it helps clarify how some terms should be interpreted within the context of the standard. While the terminology used generally coincides with ITIL concepts, there may be slight nuances in the definitions, although probably of little relevance.

Figure 1 – ISO/IEC 20000-1:2011 SMS model

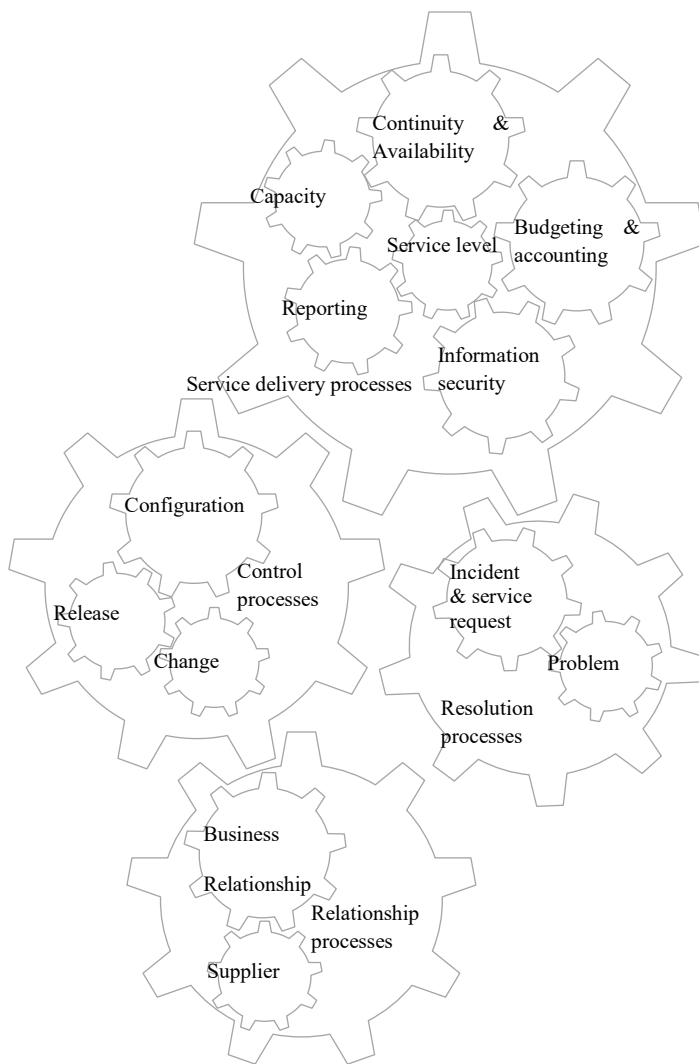


Source: ISO (2011)

The service-management system (SMS) is defined in points 4 to 9, being those that contain requirements in accordance with the structure shown in Figure 1. These are not sole requirements, so listing them is not simple. Many have a number of implications that should also be interpreted depending on the characteristics of the organization implementing the standard or other variables.

From this point onwards, the ISO 20000 standard is structured on three levels. The first, described in point 4, defines the service management system (SMS) including: policies, responsibilities, documentation management, risk management, resource management, governance of processes operated by other parties, and system implementation and improvement (including internal audits).

Figure 2 – ISO 20000 processes



The intermediate level, defined in point 5, describes requirements regarding the design, transition (to start operations) and retirement of services, whether new or modified, for their correct integration into the management system (SMS). These two levels create the framework within which processes are integrated, as showed by Figure 1.

Thus, on a third level, points 6 to 9 define the group of 13 processes that together structure the activity necessary for service management, as shown in Figure 2. Although the standard is structured by sections for each of these processes, it does not require the implemented system to use precisely these 13 processes (there may be more, fewer or different ones), the system only requires implementation of those processes necessary for all requirements included in the model to be covered. The processes of the model are, then, gathered into four groups: provision processes, listed in point 6; relationship processes, listed in point 7; resolution processes, listed in point 8 and, lastly, control processes, listed in point 9.

The aim of provision processes is to guarantee that services are delivered in accordance with previously agreed levels of service, with the costs defined and with the due characteristics of continuity, availability, capacity and safety. To achieve this, the next processes are defined (with their corresponding clause number): Service level management (6.1), Service reporting (6.2), Service continuity and availability management (6.3), Budgeting and accounting for services (6.4), Capacity management (6.5) and finally Information security management (6.6). Relationship processes facilitate management with other parties as long as these are not considered to be process-operating third parties (in this case, they must be managed according to the requirements imposed by the management system itself in point 4.2). Other parties are considered to be clients, users and other interested parties in the services and suppliers, giving rise to a need to define the processes of: Business relationship management (7.1) and Supplier management (7.2).

Resolution processes are divided into Incident and service request management (8.1) and Problem management (8.2). The first focuses on prioritizing, and attending to, users who have difficulties with the services or those who have to channel their requests, as well as incidents that can affect the delivered service. Problem management is dedicated to investigation and a definitive resolution where possible of the root causes that can or do give rise to incidents.

Finally, control processes are designed to keep both infrastructure and services in order. A Configuration management process (9.1) must take into account configuration elements or assets (configurations items or CIs) that are used in the delivery of services, including their condition and the relationships between them. A change management process (9.2) focuses on taking decisions regarding the possibility, viability and convenience of making changes to CIs. Finally, the Release and deployment management process (9.3) is responsible for the ordered and planned implementation of those changes approved by change management.

4. ISO 20000 analysis and proposals

Beyond the theoretical basis, the analysis and proposals contained in this article are based on the practical experience. Although this article is not intended as a case study, it is based on the experience obtained in an actual ISO 20000 implementation and use in the IT department of the University of Girona.

A high education institution implemented this management system with about 14.000 students, 1.300 academic personnel and 600 staff members. The design and implementation was carried out in the first half of 2011, taking as reference what at the time was a draft version of the forthcoming 2011 version of the standard. In October 2011 the system was independently audited and certified by a reputed third party certifier according the itSMF schema, which is in fact the worldwide most recognized.

Even when the scope of the management system and the certification covered only IT services, as an academic institution we asked ourselves about the possibility of use it for other services. It could be other internal services like administrative, facilities, research, etc., or it could be educational services, which in fact has his own quality system.

All the experience gained deploying and using the ISO 20000 compliant management system alongside with other quality management systems leaded the authors to this critical analysis of the standard and to figure which proposals could make it better, more flexible, more effective or desirable changes to manage more heterogeneous kinds of services. Based on this experience, this article proposes some changes that might contribute to improve the standard and/or to adapt it in order to manage other kid of services beyond IT. But before that, it is necessary to review the previous clauses.

While the first sets of clauses are purely introductory, the actual system definition starts with clauses 4 and 5. Clause 4 defines the requirements of management system core, establishing, at least, 3 key characteristics: continual improvement, responsibilities and risk management. At this level, ISO 20000 is very similar to other standard quality systems as ISO 9000. On the other hand, clause 5 specifies the requirements to successfully design, put in operation and eventually retire services. It is more a project requirements than a process in the sense that it is not part of the usual operation and it is not integrated with the rest of the processes. These requirements are focused on assure that the services to be managed are ready to fit in the system, and while the system doesn't suffers damage from the inclusion or retirement of services.

Focusing on the next clauses, from 6 to 9, the objective of the article is not to examine every requirement in detail, not to search every little improvement in it, but to describe the process at a high level while proposing a set of concrete improvements. This article takes advantage, in every analysis, on the fact that almost every process control and manage registers and documents.

4.1. Service level management

The service level management process is designed to guarantee that the services are provided according to the service requirements and that those requirements are agreed with the clients. This assurance requires the establishment of measures alongside with their corresponding indicators, and to monitor the quality level of the services being provided.

In fact, the characteristics of services are established and formally agreed in a document that must exist for each service called Service Level Agreement (SLA). These must be agreed with the customers, so they take the form of a more or less formal contract between the service provider and the service customers. Alongside the service level monitoring, this process is responsible for the establishment and maintenance of the service catalogue. This tool has to allow the formal establishment of the list of services offered and their characteristics. This formal requirement pursues maintain a coherence between services and to allow customers to know in advance which services are offered and which characteristics they have.

All these three described activities: service cataloguing, service level agreement and service level monitoring are necessary to be performed by most kind of service providers. In IT cases, the two first usually produce very formal and specific documents, but not the last one. These agreements should be done in a standard form, depending on the nature and longevity of the relationship between the service provider and the client. On the other hand, monitoring the services to determine the fulfilment of quality standards is necessary, in a more or less innovative way for all kind of services. Not to do so, would drive to not assuring the quality of the produced services.

4.2. Service reporting

The service reporting process is aimed to guarantee that reports are produced and used. This process guarantees that other processes make reports to be consumed by third processes. However, this objective has to be accomplished, but it seems that a process exclusively for

that is unnecessary. Probably it is consequence of legacy systems that where pre-digital technology revolution. That makes us to propose to:

P1.- Eliminating the service reporting process

The process would be substituted by including requirements to the management system itself. These ones must ensure that every report or outcome to be produced by each process is effectively produced and responds to an actual system need. In fact, given that the management system itself defines the requirements for the documentation, from top level policies to the registers, it seems logical to regulate the report production at this level.

The use of IT technologies, in this case applied to de management of IT itself, makes the production of classical and discrete reports not as fundamental to management as it was in the past, while continuous reporting, data visualization, control panels, balanced scorecards or reports on-demand are expanding ways of sharing information between processes. Moreover, a reinforcement of this proposal is to realize that other management systems of great success like ISO 9000 or ISO 14000 don't use specific processes to guarantee or control reporting activities.

4.3. Service continuity and availability management

This process is aimed to guarantee both quality services characteristics: Availability and continuity are very valuable characteristics of services. Especially in continuous service provision, like are most IT services, they are invisible qualities until something goes wrong. That makes some users not to have the right value perception of the service by ignoring these characteristics until they are needed and the lack becomes apparent. Meanwhile, services are usually cheaper to produce if availability and continuity are no conscientiously managed and provided. This may tempt the service producers to save in costs and hide the risk to the user. This can drive to a disastrous experience at the worst time. That is why both characteristics must be guaranteed, or at least make a serious approach and inform the client if they lack or at what level are guaranteed.

Moreover, continuity and availability must be confused and somehow mixed. Availability refers to the characteristic that makes the service accessible or consumable anytime or at least when is supposed or agreed to be available. IT services availability are often expressed as a high percentage of the time that the server is up. For other services it could be measured

through a punctuality indicator or a percentage of requests served for instance. Continuity, on the other hand refers to the ability of the service provider to keep running the services or even the business after a major incident occurred (Svata, 2013). Continuity is often associated with catastrophic incidents and has a long history as reported.

This way, the process often produces two main documents: an availability plan and a continuity plan (Herbane, 2010). It is optional to split those documents or keep them together but there are two different circumstances that must be addressed, facing different targets with different strategies, so we are going to present them as two separate documents, that is a frequent practice. The availability plan is focused on taking the actions needed to guarantee that services are available when they have to be (always in most cases). Availability should avoid any service cut or even delays. On the other hand, the continuity plan usually contains, at least, three main subjects. First, the measures to be taken previous to any incident to prevent, reduce or overcome their consequences. Second, the most important and sometimes the only part in this document, it contains the actions and measures to be taken in case of continuity incident. Third and finally, it could include procedures to recover normal operation (Fry, 2004; Pinta, 2011).

The actions and procedures to be taken when a continuity incident occur are often explicitly invoked, being a major and conscious decision made by authorized personnel only or a committee. Consequently, availability and continuity are different service characteristics that should be managed with different strategies. This is the reason for recommending next proposition:

P2.- Splitting availability and continuity into separate processes.

While both, availability and continuity are desirable, the scope and requirements of these guarantees depend on the specific service characteristics or other conditions. Availability and continuity can be differently balanced depending on the service nature and business needs. Some services or service providers will focus in availability and others on continuity. However, from our experience, we have found that for some organizations, it exist the temptation of excessively rely on availability measures. Those measures seem to guarantee the service robustness and leads to forget the continuity. Additionally, we must consider that usually continuity measures are not for free, but are invisible. This way the continuity guarantee of the service increases the price while is not easily visible or even valued by customers.

It is relevant to note that ITIL has separate processes for those, and more, that it exists a ISO 22301 standard specifically addressed to manage the business continuity, that even being different to service continuity rely on the same principles and strategies.

Another frequent practice by IT service providers is to include availability clauses in the service level agreements or in the service characteristics description, but it's not so common to do so for service continuity policy. This leads to hide this characteristic (or the lack of it) to the users. So, we suggest that is necessary to explicitly require to inform users about continuity policy, as described in proposition 3:

P3. Requiring informing users about the continuity policy for each service

4.4. Budgeting and accounting for services

Budgeting and accounting for services is aimed to know the cost and optionally charge for the services provided. This process in some cases is coincident with de business budgeting and accounting while in some cases it is not, depending on how service oriented is the enterprise commercial operation.

The process produces a service-oriented budget and has to assign the costs to the services using an adequate policy. Identify cost per services seems a good practice for management, even when there are specific cases in which the effort to do that could be inefficient. In these cases a general analysis and conscientious decision should be taken.

4.5. Capacity management

Capacity refers to “how much service” production can be done. To know how much service production capacity you have, all the needed resources must be known and taken into account (assets, human resources, knowledge...). Capacity planning must be done in advance, through the establishment of a capacity plan. Knowing and adjusting service production capacity is a necessary activity for every imaginable service case.

4.6. Information security management

This is the more IT orientated process of the whole system. Security, as a general concept, concern to every activity. However, considering its relevance, it seems necessary to go beyond information security to a more general concept of risk (Nazimoglu & Özsen, 2010) that includes information.

P4. Defining a security, risk and compliance management process

Even when the risk policy is included in the general system's requirements, it is a subject to be managed: a specific responsibility must be assumed by a process that takes care of it (Emblemsvåg, 2010). Even when risk and insecurity are different in nature, the risk activities and security can be managed together given its compliance focus.

4.7. Business relationship management

Business relationship management is the first of two relationship processes. This one has the logical place of being the top interface of communication with customers, clients and other interested parties, managing the relations with them (Salomonson, Åberg, & Allwood, 2012). This relation can have a very different nature depending on the business nature, the business model, the kind of service or other factor like if the service provided are charged or not. Moreover it is very different to be an internal service provider inside an organization from be a service provider to external clients. In fact, the name of the process itself makes difficult to identify his function in some cases; but we have to remember that process names are not compulsory, even process structure is not, if we accomplish the requirements that this processes have to face.

The target in the aim of ISO editors here seems to be the enforcement of a single point (process) of control to guarantee the coherent definition and monitoring of relations with customers and users. Probably this should even include when the communications are caused by other process activities, like pure operations, service level or incident management (Holmlund, 2004). However, just some activities are explicit requirements. The main requirements include conduct service reviews with the customer, complaint definition and management, and customer satisfaction measurement. In order to transform this process a real interface with the client and user, the proposal of the article is to expand the requirements of this

P5. Requiring the business relationship management to supervise or regulate all the communication with clients and users

Not requiring it can cause a lack of consistency in the customer and user relationship. At last the communication with the users are part of the service provided, usually known as service encounters (Henten, 2012). Service encounters are the “moments of truth”, from which depends in great extent the customer satisfaction (Bitner, Brown, & Meuter, 2000). In fact, the current standard requirements allow the management system to establish two or more different relation models: One more formal and polite when “making business” and another more casual and even rude when operating or supporting the services (for example through the service desk).

4.8. Supplier management

Generally, third parties must provide many products needed for the service production externally. Obviously it should exist some cases where no supplier takes any part of service production, in which case a statement identifying the lack of suppliers can be enough to eliminate the process consciously.

However, in most cases, supplier management is critical to guarantee the services quality. In fact, the implicit obligation of take care of suppliers before services are put in production (clause 5 of the standard) must be taken seriously. Moreover, it must be clear that suppliers are not third parties operating part of our processes, given in this case it applies the clause 4.2 and must be managed according to it. Sometimes this can happen in an unconscientiously way.

4.9. Incident and service request management

This process takes care of the management of incidents and service requests made by users. Analysing the process name, the proposal of the authors is obvious:

P6. Defining incident management and service request management as separate processes

The common point of incident and request management is that the flow of requests and incidents registers are usually tracked by a unitary record, generically named ticket, record, call, or request.... In some cases, service request and incidents tickets are managed together, making confusion even greater when the process is the same. However, incidents and requests

are very different in nature and must be managed in very different ways, even if the personnel dedicated to do this is the same (Bartolini, Stefanelli, & Tortonesi, 2010).

An incident is an unplanned interruption or a reduction in the quality of the service, namely by definition corresponds to an abnormal or unplanned success. There are cases, like most IT services, where incidents are more or less common, however, this fact don't make them predictable and usually need to be solved in a one at a time basis.

On the other hand, service requests are a channel to access service features or a pre-approved change to the service that, in both cases, must be explicitly requested. So, service request must be as well defined as possible and should be perfectly planned and reflected in the service catalog (Ludwig, Hogan, Jaluka, & Loewenstern, 2007). In fact an objective of most managers is to automate as much as possible the service request provision. Probably to split incident management and service request is one of the more requested and obvious changes that the standard needs, having been claimed frequently. ITIL made this step in 2007 with the third version.

4.10. Problem management

Problem management is focused on the tracking and resolution of the root causes of recurring or potential incidents. This is a specific and key activity in service management that don't have other quality systems. This is usually done by registering and tracking tickets usually called "problems" (Olson, Mazzuchi, Sarkani, & Forsberg, 2012). This process represents the incarnation of the continuous improvement addressed to the quality of the services themselves. However, on the other hand, the system has its own continuous improvement engine as they have most standard management systems and specifically all the defined by ISO.

It seems not necessary to maintain separate registers, especially when one of them is focused on improve the management system and the other to improve directly the services. And moreover for this second case, it is frequently confusing to find the difference when the services must be improved not because real or potential incidents can occur, but when it is just an improvement initiative. Considering this point, this is the next proposal:

P7. Merging problem registers and continuous improvement.

Or in other words, let problem management process track and prioritize the service improvement alongside the management system improvement non-conformity and other improvement records. Considering this point, the prioritization will be common based on the impact and potential benefit of the improvement, and the resources allocated will be optimized.

On another hand, it is possible that in large organizations exist specific problem management teams with very technical skills. In this scenario, once the problem is prioritized among other problems or improvements, it could be assigned to the right team and follow a specific procedure. However, for solving the problem, it appears another key activity assumed by this process: Knowledge management is key for problem resolution. Some knowledge is produced as a consequence of problem investigation, taking the form of known errors or solutions. But there are a lot of other sources of knowledge that must not be disaggregated. All the possible captured knowledge should be collected in a knowledge database. It should be fed with all his knowledge to the other processes, specially, but not only, incident management or other operational activities. The importance of knowledge in most cases in the service sector is huge, and to make focus in finding the best ways to manage and explore is key to be effective, that bring to the next proposal:

P8. Creating a separate process for knowledge management.

This way the focus of the new process could be more in collect knowledge from wherever it is and make this knowledge easily consumable, finding ways to explore and take advantage of knowledge collected. This knowledge management should focus specially in transferring the knowledge in outsourcing or highly integrated providers as stated by (Blumenberg, Wagner, & Beimborn, 2009). However, this should be compatible with (Mohamed, Ribière, O'Sullivan, & Mohamed, 2008) suggestion that the knowledge must be stored in a CMDB (Configuration Management Data Base) with a higher level of conceptualization.

4.11. Configuration management

Configuration management is the central process taking care of “inventory” all the parts implied in the service provision. In IT sector given the complexity of the service, the process activities flow around the maintenance of a database of configuration items (CI) called CMDB.

It is not difficult to figure more simple services that the idea of a database can sound to complex, but it is always needed to have a clear vision of everything needed for the service production and have a central repository for this information where other processes can benefit. This is knowledge too.

4.12. Change management

Even when the name of this process can be confusing for the newcomers, change management actually makes no changes. This process is focused on taking the right decisions and on registering any change to the configuration. It comes from the assumption of a static configuration that has to be kept stable, so any change to it should be formally managed. In some way it assumes that change is risky. According to this process, any change must be declared and in wherever possible analysed and decided by the process stakeholders.

Probably change management is one of the processes that could take more different approaches depending on service nature, organizational structure and culture, and other specific factors. Even recognizing the key central importance of change management there are kinds of services that could force to agile practices that could lead some organizations to barely respect the requirements of the standard for a correct change management. s

4.13. Release and deployment management

Release and deployment is a typical IT activity. Although some define this process as “the hands of change”, releasing and deploying, even not said is implicit to software change and updating. Their focus is to launch to production “new versions” of the services. It is a very operational process and it is based in the idea that the services are “running” and that the changes in their characteristics are controlled by release activities.

The authors think that, even in IT, there are services that don't follow this pattern and moreover it occurs when services are from other kind. Considering this point, the last proposal is:

P9. Defining this process optional and renaming it as service provision

When talking about heterogeneous service, it must be taking in account that the majority of the services don't change at all during their lifetime, they change in an evolving and

continuous way, or they need a complete new design process done under the control of clause 5. This is the main reason to propose the definition of this process as optional.

5. Conclusions

This article first introduce readers to the unknown standard that ISO 20000, one management standard that may be will very relevant in the future. Using just the data and knowledge of a specific implementation, in the IT services of a University, authors describe nine specific proposals to improve the standard. Their main objective is to have a more flexible standard, and basically, increase customer's satisfaction. These proposals can be useful for the ISO Technical Committee who will be working on the new version of the standard.

Although at this point changes have purely the form of proposals, the authors are considering the possibility of evaluating them using other expert's opinions. Whit this objective they are planning a future Delphi study on the field.

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