

8-2010

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Philipp Unterharnscheidt

*Karlsruhe Service Research Institute (KSRI), Karlsruhe Institute of Technology (KIT),  
philipp.unterharnscheidt@student.kit.edu*

Axel Kieninger

*Karlsruhe Service Research Institute (KSRI), Karlsruhe Institute of Technology (KIT), axel.kieninger@kit.edu*

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## Recommended Citation

Unterharnscheidt, Philipp and Kieninger, Axel, "Service Level Management – Challenges and their Relevance from the Customers' Point of View" (2010). *AMCIS 2010 Proceedings*. 540.  
<http://aisel.aisnet.org/amcis2010/540>

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# Service Level Management – Challenges and their Relevance from the Customers' Point of View

**Philipp Unterharnscheidt**

Karlsruhe Service Research Institute (KSRI)  
Karlsruhe Institute of Technology (KIT)  
philipp.unterharnscheidt@student.kit.edu

**Axel Kieninger**

Karlsruhe Service Research Institute (KSRI)  
Karlsruhe Institute of Technology (KIT)  
axel.kieninger@kit.edu

## ABSTRACT

IT services supporting business operations are an increasingly critical factor for business success today. The management of service quality levels, however, remains a major challenge for many companies. Especially in conjunction with IT outsourcing relationships there are many issues which require advanced methods and concepts – but there are no current studies that provide a structured overview on these and discuss their importance. Therefore, in this research in progress paper we present the results of a qualitative study on current challenges in IT outsourcing regarding the management of service quality levels. Based on a number of interviews with experts in Service Level Management we have identified ten issues representing the most pressing demands for improved solutions from the customers' point of view. These findings form the basis for a research agenda in the field of Service Level Management.

## Keywords

Service Level Management, IT Service Management, IT Outsourcing

## INTRODUCTION

IT services supporting business operations are an increasingly critical factor for business success today (Guldentops 2003). The management of service quality, which is the central objective of Service Level Management (SLM), however remains a major challenge for many companies. Especially in conjunction with IT outsourcing relationships, i.e. with external service providers involved, there are many issues which require advanced methods and concepts.

Numerous approaches to address the issues of this wide field – which covers all tasks related to the definition and adaption of service quality parameters and their target values (service level objectives), the monitoring and reporting of service quality achieved and the control of corresponding management processes – are discussed in academic literature (see e.g. Beaumont 2006; Bouman, Trienekens and van der Zwan 1999; Grütter, Schwabe and Aschoff 2007; Hartley 2005; Lewis and Ray 1999; Rodosek and Hegering 2004; Sauvé, Marques, Moura, Sampaiou, Jornada and Radziuk 2005a, 2005b; Trienekens, Bouman and van der Zwan 2004). However, there are – as far as we know after extensive literature research – no current studies which provide an overview on the most important challenges of Service Level Management from the IT outsourcing customers' point of view since most studies focus on IT Service Management in general (e.g. Böhmman and Krcmar 2004; Luftman, Kempaiah and Rigoni 2009; Sturm, Morris and Jander 2000). A detailed knowledge of IT outsourcing customers' requirements is indispensable for service providers to improve customer support and thus for academia to address crucial, practice-oriented research questions in the field of SLM. Therefore, in this research in progress paper we present the results of a qualitative study highlighting the main issues of IT outsourcing customers ordered by the urgency to develop appropriate methods and concepts to solve these. Thus we form the basis for a research agenda concerning SLM in IT outsourcing.

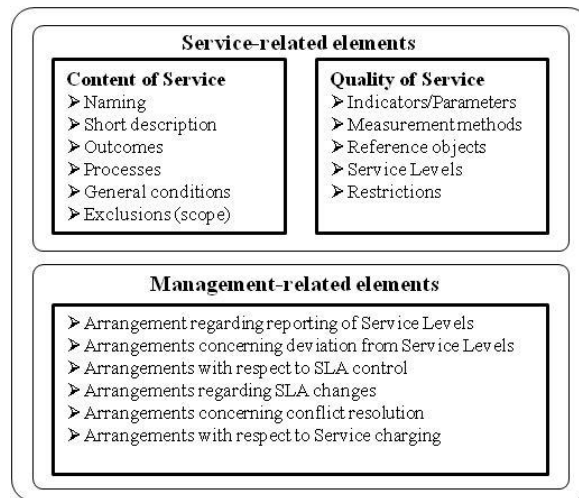
In the following section, the research method applied is introduced. In section three, the findings gathered from several expert interviews are discussed in detail. Afterwards, we consider potential limitations of our approach. Finally we conclude and outline next steps towards a research agenda for SLM in IT outsourcing.

**RESEARCH METHOD**

To identify the most pressing challenges of SLM from the customers’ point of view a qualitative approach was taken using expert interviews. For each interview a structuring interview guideline based on two frameworks was applied which introduced various themes for detailed discussion.

However, the purpose was not to restrict the discussion to these topics, but rather to allow for a comprehensive approach. Interviewees were encouraged to discuss a matter as freely and broadly as possible, and to take up points themselves in order to allow for new and interesting considerations. All interviewees were informed about the study’s goals as well as about the research approach taken beforehand. Furthermore, the interview guideline was sent to them so they could prepare for the interviews.

The first framework we applied depicted the typical elements of Service Level Agreements (SLAs) which belong to the main concepts of service management (Trienekens et al. 2004). SLAs represent a ‘static’ aspect of SLM being the contractual basis for service relationships. During the interviews we focused on service-related and management-related elements of SLAs (see figure 1).



**Figure 1. Elements of a Service Level Agreement (based on Berger (2007))**

The second framework we used (see figure 2) showed an idealized lifecycle of an SLA and thus represented a ‘dynamic’ aspect of SLM. During the interviews it was used as a means to identify issues that occur during the lifetime of an SLA. So, this framework was another structuring element, which firstly helped to broaden the interviewees’ view and so to ensure that the list of issues was as complete as possible. Secondly it helped to categorize and cluster the issues mentioned.



**Figure 2. Idealized Lifecycle of a Service Level Agreement (based on Berger (2007))**

The interviews were recorded and transcribed as well as checked and discussed by two interviewers each ensuring unbiased findings and avoiding misinterpretation as specified by Kvale (2007) and Gläser and Laudel (2009). All interviews were conducted between August and November 2009.

**Participants**

All interviewees who participated in the study are Service Level Management experts in senior management positions of large companies applying IT outsourcing services. They represent the connecting link between internal business units and several external IT providers and thus may be regarded as experts for SLM and IT outsourcing.

The following criteria were applied when selecting participants. All participants had to:

- be directly responsible for the Service Level Management process within their company
- manage several IT providers to allow for a comprehensive perspective on Service Level Management relationships
- be legally independent from IT service providers their company has contractual relationships with

Considering these criteria, seven participants were selected, which represented the following industrial sectors: financial services (3x), retail market (2x), engineering industry (1x) and logistics (1x).

These companies apply different forms of IT outsourcing which referring to Bräutigam (2004) and Allweyer, Besthorn and Schaaf (2004) may be classified into three groups:

- Partial infrastructure outsourcing (3x) which is the delegation of operation, support, optimization and maintenance of several hardware components to one or several providers (inhouse or external).
- Partial application & infrastructure outsourcing (3x) which comprises the hosting, maintenance, support and further development of several applications by one or several providers, often combined with the outsourcing of corresponding infrastructure components.
- Full outsourcing (1x) which implies the outsourcing of all IT components of a company to one or several providers.

**FINDINGS**

In this section, we present the major challenges of IT outsourcing customers regarding Service Level Management. Therefore, we describe all issues, which we composed in ten main points, from the customers’ perspective (see also table 1).

The different challenges are ordered by their relevance (starting with the highest). In this case, relevance is understood as the urgency to develop appropriate solutions to address a challenge and its importance for the success of a service relationship – and thus for business success itself. Although challenges are discussed separately, these are often closely interrelated and interdependent from one another.

↑ Relevance ↓	high	(1)	The definition of service quality
	(2)	The technical focus of providers	
	(3)	The complex enterprise structure of customer companies	
	(4)	The management of multiple providers	
	(5)	The representation of customer expectations with respect to budget constraints	
	(6)	The incompleteness of contracts	
	(7)	The rigidness of contracts	
	(8)	The monitoring and reporting of Service Levels	
	(9)	The technological improvement activities of providers	
	low	(10)	The application of on-demand services and risk-sharing models

**Table 1. Service Level Management - Challenges from the Customers' Point of View**

### **1) The definition of service quality**

The biggest challenge in the field of SLM is the definition of IT service quality. Stipulating the quality of a service, two aspects have to be considered. Firstly, an IT service has to support customers' business in order to create high value. Secondly, the Service Level Objectives defined have to be measurable. Only if these are measurable, the achievement of the service quality agreed upon is assessable and respective consequences for the case of non-attainment can be implemented.

The evaluation of a service regarding quality of business support and business value generation poses a challenge, because these properties are difficult to measure. What is simpler, however, is the measurement of technical characteristics of IT services, as for example throughput rates. These technical metrics can be monitored simply and automatically. The difficulty, though, is to determine value contribution and business support by means of these technical measures. The "translation" of customers' requirements into technical parameters is a major challenge.

### **2) The technical focus of providers**

Another major challenge for customers in IT outsourcing relationships is the technical focus of IT providers. The main goal of IT providers is to reach compliance with technical service levels stipulated in SLAs. Having only little knowledge about a customer's internal processes in many cases, it is often impossible for a provider to optimize an IT service in terms of business support and contribution. Frequently, there is neither an interest of nor a possibility for the provider to provide a service achieving the highest support possible for a client's business.

### **3) The complex enterprise structure of customer companies**

Also, the complexity of company structures on the clients' side poses a challenge. Consequently, it is difficult to evaluate the quality of IT services in terms of business value creation. According to the increasing complexity of a corporate structure the number of links and dependencies between different IT infrastructure elements also raises the number of heterogeneous requirements to be satisfied. Thus, it is often difficult to specify appropriate quality parameters and to define target values for these. Furthermore, the business impact of missing individual service levels is insufficiently known, thus making it even more difficult to determine adequate target values. For this reason, service quality targets are often defined by experience or pure guesswork. Therefore, if a change to an IT service is made the effect on business may not be fully known beforehand.

### **4) The management of multiple providers**

To save costs, minimize risk or to take advantage of the specialization of certain providers, IT services are often delivered by different suppliers. These services depending on one another generate added value for business. This interaction also requires adequate alignment between different providers. In order to ensure a smooth service provision, coordination is needed. Since the various providers do not incur any contractual commitments among themselves, their cooperation has no contractual base and may get difficult in the case of conflicts. This is why customers have to control provider collaboration for their own benefit of perfectly aligned IT services. Only the customer as contractual counterpart of all providers can direct and control service creation.

### **5) The representation of customer expectations with respect to budget constraints**

Stipulating service levels it is always a challenge to meet customers' expectations on the one hand and to abide by budget constraints on the other hand. Even if a customer expects very high service levels, e.g. regarding availability, the cost-benefit ratio still has to be considered, i.e. the service level agreed upon has to be efficient.

This obviously leads to contractually agreed service levels which cannot fully meet all expectations. To handle this discrepancy, support processes often have to be adapted in the service delivery phase in order to make sure service quality achieves a level satisfying the customer despite low service levels defined beforehand (e.g. on infrastructure components).

## 6) The incompleteness of contracts

From an economic point of view it is not affordable to consider all possible future situations and requirements of an IT outsourcing relationship in a contract. Usually, both partners are aware of the “gaps” resulting from this circumstance. In addition, in some cases it is difficult to define service level parameters (service level indicators) based on verifiable data, which allow for an unambiguous measurement of service quality of complex services. Therefore, general, qualitative statements such as “as soon as possible” or the like are used in contracts.

For these reasons situations may occur which are not covered by or not exactly defined in SLAs. Especially different interpretations and understandings of contract clauses often lead to conflicts. Therefore, clients and providers have to be in close contact and constant discussion to prevent conflicts and identify possible future problems. Regular communication between the different parties co-creating a service raises the providers’ awareness of customers’ needs.

Communication and cooperation are considered by clients to be highly important since these complement incomplete contractual arrangements and hence contribute to the development of good outsourcing relationships. Especially the early weeks and months of a contract period are regarded as an essential project phase, within which most of the possible issues are discussed and a basis for a reliable bilateral cooperation can be established.

## 7) The rigidity of contracts

When a contract is concluded only already known, current and foreseeable future requirements are considered. Yet unpredictable requirements are difficult to take into account. If these occur in the course of a service relationship, it is always a challenge to adapt the corresponding sections of a contract. This is mainly due to the close association of service quality definitions with price structures. These core parts of a contract are not easily changeable. Therefore, it can happen that a (written) contract is not updated despite new agreements. Thus, the contract differs from the services actually provided and paid for. The willingness to adapt a contract to new situations decreases especially at the end of a contract period, as changes have to be considered holistically in a potential subsequent agreement in any case.

## 8) The monitoring and reporting of Service Levels

The definition of detailed, infrastructure-based service quality measures often results in large amounts of data reported, which leads to a high effort for customers to review and handle it. For them it is difficult to focus on relevant data and to aggregate different kinds of technical reports in order to assess the business process support actually achieved. This results in lot of work, which is complicated if different providers use different measurement tools and reporting formats . Typically, manual steps are necessary to collate and analyze reports.

In many cases customers’ requirements are the reason for this information overload. Only by the use of technically detailed reports can they get a detailed insight into the functioning of services purchased and are able to determine which IT component causes failure or low performance. Therefore, the consolidation of key figures in reports is often criticized by customers as concealing important information for problem analysis.

However, a standardized, business-oriented reporting would enhance the customers’ situation. Standardized reporting tools and languages could allow for manual steps to be automated. Furthermore, if only directly business relevant performance data were reported, the administrative effort taken by both outsourcing partners could be reduced. An end-to-end measurement reflecting the end-user experience would on the one hand defuse the challenge but on the other hand contradict the aspects mentioned above.

Several times strict risk management regulations of financial supervisory authorities have been mentioned as a reason for the demand for detailed technical reporting by customers. However, customers have to consider up to what extent a control of service delivery and by association of their providers based on detailed technical information is useful.

## 9) The technological improvement activities of providers

The fulfillment of contracts is the main goal of providers. They seek to reach this target with as little effort and cost as possible following their objective to maximize profit. Technological progress fosters the achievement of this goal since service quality levels agreed upon become reachable with decreasing effort over time. Providers’ concern, however, is contrary to the objective of their customers to obtain the best IT services available.

For customers it is important to continuously improve IT services in order to compete. But this improvement often is not considered in outsourcing contracts since its measurement and pricing is complex. On the part of the provider there is no interest to enhance a service at its own expense. The stipulation of service improvement in a contract is seen as a challenge since an investment in service quality usually involves a change of cost structures.

For these reasons, customers have to trigger service improvement themselves in order to receive the best performance available – subject to their budget constraints. Thus, they also need a high degree of IT knowledge to assess the services they (could) receive. On the basis of granular reports they can get an accurate picture of a provider's performance. Thus the role of provider management (also referred to as retained organization) is important, since it is responsible for purchasing adequate, cost-effective and efficient IT services.

#### **10) The application of on-demand services and risk-sharing models**

Customers always aim at contracting IT services which support their business best. However, a constantly high service quality often is not needed at all times. Consequently customers request on-demand services charged on a pay-as-you-use basis. Paying for services consumed only, reduces customers' costs, especially if a service is just used a few days a month or high availability is just required at certain periods of time. In the context of software as a service, on-demand service models are applied already. With regard to customer support or other personnel-intensive services, however, these models are rarely used.

It has to be considered, that providers' cost highly depends on the infrastructure allocated. Thus, providers' costs remain approximately equal, regardless of the performance actually utilized by a certain client. Therefore on-demand service models from a provider's point of view only apply if an infrastructure is shared by several customers, resulting in nearly continuous performance requests. In doing so, the service cost for an individual customer may be reduced. This, however, proves difficult for customer specific services.

Some customers also think about a determination of IT cost based on the success of their business. Thus, customers' risk of high IT service cost – especially in times of depression – could be reduced and providers would try to support clients' business best at all times. However, there are customers who question this approach of price determination, too. They argue that it is difficult to define and measure business success. On the providers' side, there is also only little interest in hinging service prices on clients' success. For them, this would involve a risk they cannot adequately influence on. So far, on-demand services and profit-sharing models are not subject to the outsourcing contracts discussed in the interviews we conducted.

#### **CONCLUSION**

In most cases we realize that the decision to approach a certain challenge implies a trade-off between better business IT alignment and higher IT service costs. Furthermore, we understand that frequent communication between business partners plays a decisive role regarding the development of a good service relationship. Incomplete contracts and ongoing changes of requirements as well as variable environments make it necessary for business partners to be in constant contact.

Therefore, in all companies examined, a competent provider management department plays a key role in Service Level Management on the customers' side. As enablers of communication and 'translators' of customers' requirements they allow for a proper understanding between IT service end-users in a company on the one side and the IT provider on the other. In this function, the provider management holds a high level of IT knowledge in order to be able to influence IT service provision and its quality. But not only the knowledge about IT services empowers the provider management to serve as a translator between end-users and providers, but also the knowledge about a client's internal processes, organizational structures and infrastructures. This bidirectional competence is important to establish a profitable service relationship.

In consideration of the high cost and effort, to keep a high degree of IT knowledge within provider management, the question arises, if it would be more cost efficient to assign the task of defining and monitoring IT services and their quality to a provider. This, however, would require a direct communication between the provider and the end users to enable the provider to fully understand the end users' requirements and the relevant business processes. To grant such deep insights into company structures to a provider is often a big hurdle for clients. They also need to trust in the provider, that the IT service delivered and its quality is fully satisfying their requirements.

Thus, the development of improved cooperation methods and communication channels between customers and providers is the main topic on the research agenda for SLM in IT outsourcing. By the use of enhanced concepts and methods, a good business IT alignment can be achieved with less effort. Besides this, the development of improved models for the definition

of roles and the allocation of responsibilities between IT outsourcing partners will have a significant impact on the efficiency of future outsourcing relationships.

## LIMITATIONS AND FURTHER RESEARCH

Having discussed the different challenges of SLM from the customers' point of view, we are fully aware of the limitations of the approach applied in this research in progress paper:

- The research method applied is of qualitative nature. Only seven interviews have been conducted. Therefore, the results obtained need to be evaluated using a quantitative approach.
- The interviewees who participated in our study are all representatives of German companies. They may or may not be representative of global respondents or the respondents of any other particular country. Thus the study has to be extended to further countries.
- The participants of our study represented four industrial sectors only. Although the challenges identified were similar in all interviews conducted further industrial sectors have to be examined.

Still, we are convinced that the results of our research are valuable for service providers in order to improve customer support and thus for academia to address practice-oriented research questions in the field of SLM. At the same time, the limitations above leave a broad field for further research. As a next step, we will evaluate the findings of our study discussed in this paper using a quantitative approach. We will ask a large number of SLM experts from European companies covering different economic sectors to answer a questionnaire which is based on the results presented above.

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