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# 50F. ICT Service Agreements: Definitions, Purpose and Development Principles

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## ***Abstract***

Service Agreements (SAs) are often inappropriately developed, documented and deployed. For the accurate management of the client's requirements, SAs play a critical role. Appropriate SAs serve both the service provider and the client. The role, content and structure of an SA need to be understood before an attempt to develop them can be mounted to develop them. There are distinct process elements and key development principles for the development of an SA. This paper describes SAs, explores their purpose, content and structure and concludes by describing the eight SA development principles.

## ***Keywords***

Service Agreements, Service Level Agreements, Service Management

## **1. Introduction**

A contract is a written document that details the relationship between two parties. A Service Agreement (SA) is a special type of contract that is frequently inappropriately developed. An SA needs to act as a working document that details the spirit of cooperation between the service provider and the service recipient. Eventually, an SA documents the relationship between the stakeholders, together with the formal legal and financial clauses and technical specifications International Engineering Consortium (2002).

An SA is suggested to take between three and six months for a sufficiently developed agreement to be constructed Verma (1999). In order for the relationship to continue to prosper, the SA needs to be continuously reassessed and renegotiated, but on a smaller scale than during the creation phase.

This paper provides an SA definition, examines their purpose and provides a synopsis of their role, content and structure. This paper concludes by examining SA development principles.

## **2. Service Agreement Definitions**

An SA is a legally binding document between two parties that specifies the conditions of the business relationship between them. An SA is a precise statement of the expectations and obligations that exist in a business relationship between two organisations: the service provider and the client (Verma 1999). According to the International Engineering Consortium (2002), SAs are contracts between service providers and clients that define:

- the services to be provided,
- the metrics associated with these services,

- the acceptable and unacceptable service levels,
- the liabilities on the part of the service provider and client, and
- the actions to be taken in specific circumstances.

Caine (1997) explains the term "Service Level Agreement" is used variably, including to refer to the whole SA. This could be somewhat confusing and misleading because the expression "Service Level Agreement" places the emphasis on the level at which the services are to be provided, and it often happens that other important contractual and commercial/business issues (and their legal ramifications) are overlooked.

### **3. Purpose of Service Agreements**

The primary business processes of many organisations are strongly dependant on Information and Communication Technology (ICT) (Bouman, Trienekens, and van der Zwan, 1999). Despite the importance of these systems, many organisations can not cost-effectively provide for their own ICT needs. Thus, ICT corporations are contracted to run, maintain and upgrade other corporations' ICT infrastructure. This is known as outsourcing. An ICT Service Provider can, for example, run, maintain and upgrade a corporation's network. This would include all cables, routers, switches and supporting equipment. In the ICT Sector, the sphere of such Service Providers (SP) range from those providing small yet important services to those who are providing massive service provisions. Any organisation that intends to enter into a relationship with an ICT SP needs an SA.

## **4. Synopsis of Service Agreements**

### **4.1 Roles of a Service Agreement**

Although an SA is an excellent expectations-managing mechanism, it is important to manage expectations of what the SA can realistically accomplish. Karten (1999) argues that some people incorrectly view an SA as a complaint-stifling mechanism or a quick fix to a troubled relationship; however, using it for such purpose creates more problems than it solves. Instead, Karten (1999) believes that an SA should be viewed as:

- A communications tool. The value of an agreement is not just in the final product; the very process of establishing an SA helps to open up communications.
- A conflict-prevention tool. An agreement helps to avoid or alleviate disputes by providing a shared understanding of needs and priorities. And if conflicts do occur, they tend to be resolved more readily and with less damage to the relationship.
- A living document. An SA is not a dead-end document meant to be filed and forgotten. At a predetermined frequency, the parties to the SA review the agreement to assess service adequacy and negotiate adjustments. This is one of its most important benefits.
- An objective basis for gauging service effectiveness. An SA ensures that both parties use the same criteria to evaluate service quality.

In effect, an SA is an agreement between the client and the SP quantifying the minimum acceptable service from the client's perspective (Hiles, 2002). An SA is probably the most important document in a SP/client relationship. An SA, when properly written, is distinguished by clear, simple language and a focus on the needs and wants of the client's business (CIO, 2001). Creating a sound, mutually agreeable SA is a matter of due diligence by both parties.

## 4.2 Content of a Service Agreement

Wustenhoff (2002) agrees with Pras and Sprenkels (2001), Navarro (2001), ITWorld (2001), and Deckelman (1997) that SAs generally address the following aspects:

- A description of the service that is to be provided
- The expected performance of the service
- A detailed procedure for handling problems with the service
- A procedure for monitoring and reporting the service level to the client
- The consequences of the SP not meeting the agreed service level
- A description of under which circumstances the SA does not apply

According to all these authors, the parties involved in the development of an SA should be concerned with the following points:

*A description of the service that is to be provided.*

- What is included and what is excluded
- When the SA comes into effect
- The validity period of the SA
- Frequency of review/amendments
- Scheduled meetings between SP and client (Frequency is important here)
- Is there need for an installation timetable

*The expected performance of the service.*

- Does this include routine maintenance, client induced outages
- Network-based availability or site-based availability
- How is performance measured (Throughput, loss, downtime, etc)
- Who monitors the hardware (Client or SP)
- When does a problem start counting? When it is reported, confirmed, or detected
- Confidentiality Clauses

*A detailed procedure for handling problems with the service.*

- Feedback
- Contact people - who to call about what
- Mean time to respond ( *plus/minus* 4 hours is average)
- Mean time to repair ( *plus/minus* 4 hours is average)
- Remember - compensation is NOT the reason for service level agreements

*A procedure for monitoring and reporting the service level to the client.*

- How will the service be monitored
- How good is the reporting
  - Interpretation of the reports and statistics
  - Detail the process for the gathering of data as well as any gaps in the data
  - Suggestions for optimisation (Capital Investment, bandwidth, heavy users or applications)
  - Warning indication of degradation before it becomes a problem

*The consequences of the SP not meeting the agreed service level*

- Rewards and/or Penalties
- Can a financial penalty compensate for lost clients
- Termination conditions

- Repeated breaches of SAs - implement a Chronic Service Failure Termination Right

*A description of under which circumstances the SLA does not apply*

- Increase in the number of users/traffic
- Force Majeure. (Acts of God or Terrorism for example)

### **4.3 Structure of a Service Agreement**

To be effective, an SA must incorporate two sets of elements: management elements and service elements. Management elements are issues such as reporting, regular meetings, conflict alleviation and delivery monitoring. Service elements include items such as precise Service Level Agreements (SLAs) about specific services. These two elements can be included in two ways:

- The management elements for the relevant service are contained in the Master Services Agreement and the quantification of the service is contained in an Operational SA (Cronk, Gorbail, Wiener, Brooks, Fernandez, Lambert, Gross, Laverty, Motwami, Rao, Traugott, Richards, and Scott, 2004), or
- Both are contained in a single SA (Karten, 1999).

Caine (1997) has a similar view, but expresses the sections slightly differently. She suggests that an SA has two sections: Agreement clauses and Schedules. Ideally, the Agreement clauses serve a number of very useful functions:

- They set out the framework or structure of the Agreement, and the core issues, in a comprehensive, logical and hopefully easily understandable, manner
- They set out the management structures and arrangements that are put in place by the parties to oversee the outsourced activity and which provide a focal point for issues such as change control and dispute resolution
- They contain the Interpretation Provision which collects all the defined terms that are used throughout the SA
- They contain a summary of the major obligations of both parties
- They describe the financial arrangements that are to apply for the duration of the contract
- They set out the warranties that will be applicable
- They deal with the liability regime that is to apply across the entire Agreement
- They set out the dispute resolution process or procedures that are to apply
- They address in detail the intellectual property issues that are relevant to the transaction
- They describe the termination and disengagement arrangements that are such an important feature of outsourcing arrangements

The Schedules are traditionally used to include high level detail about particular aspects of, or arrangements under, the SA. Schedules therefore usually contain:

- Details of the services to be provided
- Details of the levels at which the services are to be provided
- Lists of equipment that exists, that is to be sold, that is to be leased, that is to be provided to the SP to be used in the provision of the services
- Lists of software owned by the Client, owned by third parties, etc that is to be used in the provision of the services
- List of rates that will be applicable to the provision of specified services (usually by reference to a particular classification of employee of the SP)

- Details of the service fees to be paid, the dates on which these are to be paid and other details associated with the price and payment arrangements
- Relevant plans (for example, plans for Transition; Quality; Management; Disaster Recovery)
- Deed of Guarantee
- And many others - depending on the nature and size of the transaction

In the model by Caine (1997) described above for the SA, the "Service Level Agreement" is that part of the SA that defines the services to be provided and the levels at which the services are to be provided. But not only are there different models for SAs, there are also different models used for constructing an SLA. A model suggested by Caine (1997) for the structure of an SLA, comprises the following components:

- Statement of Work: this part of the SA defines the types of services that are to be performed by the SP
- Service Level Details: this part of the SA quantifies the services that are to be provided (service levels) and the measures used to assess how the services are being provided;
- Description of roles and responsibilities: this part of the SA sets out the roles and the responsibilities of the client and the SP and makes it clear who is accountable for ensuring that the Statement of Work and the service levels are maintained.
- Reporting procedures: this part of the SA defines the reporting arrangements and reporting deliverables that are required from the SP.

SLAs are one of the most important aspects of an SA. SLAs define the level of service that is to be provided, as agreed to by the parties involved. They are articulated in the context of business goals and contain one or more Service Level Indicators (SLIs) (Sturm, 2003).

If an SA is going to be valuable, believes Sturm (2003), it must have good SLAs, which should:

- Identify what aspects of service are covered by the agreement
- Define the target level for each aspect of service
- Identify SLIs for each aspect of service
- Relate to specific business objectives

Each aspect of the SLA, such as availability, must have a target level of achievement. But the agreement might include two measures for each aspect: a minimum acceptable level of service to achieve, and a desired level of service that the SP should aim to achieve and for which a reward can be given. Sturm (2003) believes that planners should aim for between 5 and 10 SLAs per SA, with the goal of keeping it simple.

SLIs are at the heart of any SA. They allow the service provision to be measured and quantified. Typical metrics are a percentage of time available or level of performance for a single aspect of a single type of technology (Sturm, 2003). Ideally, SLIs should:

- Allow quality to be quantified
- Reflect users' pain points/priorities
- Include availability, performance, and accuracy metrics
- Take into account security features and systems
- Be affordable

Sturm (2003) believes that the best way to measure service levels is from the user's perspective. How available were the services that users need to do their jobs and how responsive were the services. Whichever way these user perceptions are measured, the SA needs to document each SLI used to measure the objectives, and to specify the data source for each.

Clients need to determine the most critical aspects of a service and then to ensure that SLAs are defined and negotiated to address them. Critical aspects include service security, service levels, service response times, infrastructure uptime/downtime, network performance, backup and disaster recovery, scalability, reporting, client and client satisfaction, overall end-to-end performance of service features, and escalation processes (Navarro, 2001).

## **5. Service Agreement Development Principles**

The successful development of an SA is vital to the continuing relationship between a client and a service provider. An SA is intended to document the terms of the business relationship between the stakeholders. It is thus important that the SA development process involves all the stakeholders that will be affected by the intended service provision. The SA needs to document exactly what services will be provided and at what levels, along with procedures for dealing with problems should they arise. SAs are usually in effect for between three and five years, so the original authors of the SA may not be available if a problem arises. The document needs to be detailed enough to allow any new stakeholder to effectively manage the relationship. There are eight key development principles with respect to SAs:

- The Negotiation Period
- Preparation
- People Involved
- Relationships in the Partnership
- Scope of Services
- Defining Service Levels
- Remedies for Non-Performance
- Maintaining Flexibility

### **5.1 The Negotiation Period**

One of the most important aspects of the SA development process is the length of time allocated to the process. Karten (1999) believes that it is not conducive to successful negotiations to specify a time limit for the negotiations. An SA is an excellent tool for helping SPs and their clients improve communications, manage expectations, clarify responsibilities, and build the foundation for a mutually beneficial relationship. Karten (1999, 2004) believes that many factors can influence the duration of the effort, such as:

- *The service environment:* The more services covered by an SA, and the more complex these services, the longer it takes the two parties to discuss, negotiate and document the conditions of service delivery.
- *The proximity of the parties:* Face-to-face negotiation is crucial in establishing an SA. However, if travel is needed to enable this face-to-face contact, it can add significantly to the elapsed time.

- *The span of impact of the SA:* Establishing an SA between two parties in a home office generally takes less time than establishing an SA that spans regional, national or international boundaries.
- *The relationship between the parties:* When the relationship is characterized by trust and respect, the effort proceeds much more quickly than when it is marred by distrust and dissatisfaction. In the latter situation, additional steps may be needed to begin to repair the relationship before undertaking the more formal SA process.
- *The availability of a model:* The first SA in an organization usually takes the longest time to construct. Once it is completed and in operation, however, both the document and the process can serve as a model for subsequent SAs. If the first SA is successful, later ones usually proceed much more rapidly.
- *Prior SA experience:* The most expeditious SA efforts are those led by SA developers who have had prior successful experience establishing an SA. Conversely, if prior experience is lacking or failed to result in an effective SA, the development process often hobbles along.

This development principle is focused on the amount of time it takes to develop an SA and the major factors that can influence this. There are a number of factors that influence the length of the SA negotiations. If the SA is complex, in terms of the number of services documented in it, a longer time is required for a successful SA to be developed. The proximity of stakeholders can influence the negotiation period as the greater the distance between the stakeholders of an SA, the longer it takes to develop the said SA. If the stakeholders had a business relationship prior to the SA development then this decreases the time required for the negotiations. The final factor is prior SA experience. Previous experience in developing SAs will rapidly reduce the time required for the negotiations.

## **5.2 Preparation**

A key factor in the success of the negotiations is identifying the human resource requirement (Gardner, 2000). The set of skills and experience team members bring to the project should be appropriate to that particular SA development.

This development principle refers to the primary functions that any project has and refers to the initial groundwork that needs to be completed before the project can commence. However, stakeholders frequently rush the preparation step because they are eager to begin the negotiations. A number of factors can be identified under this principle.

The first factor refers to the creation of a SA development team. This is seen as an indication of top management's support of an SA negotiation. The team then needs to establish ground rules for working together. The SA development team then should review prior SA experiences. The development team should collate a list of processes and procedures from these past experiences so they can leverage these in the negotiations. Karten (1999) believes that establishing ground rules for working together is a critical, but often overlooked, step. The SA developers (those assigned to negotiate the SA) focus not on the SA, but on the process by which they will work together to create the SA. Issues to be discussed include the division of responsibility for development tasks, scheduling issues and constraints, and concerns regarding potential impediments. In addition, the developers can benefit greatly by discussing their communication styles and preferences.



Another important factor refers to the setting of simple document formatting standards. Karten (2004) believes that one of the first steps in creating SAs is to develop a template that can serve as a guide for both initial and future SAs. Use of a template ensures consistency across SAs and guarantees inclusion of all necessary elements, while allowing for provisions that address unusual circumstances or special considerations. Although trivial, this can greatly reduce tension and frustration further on in the negotiations. The negotiation team needs to develop an SA template, using these formatting styles. A template serves as a base from which to start negotiations and is not a standard contract. The template can be used as a rough road map for the development and initial responsibilities of the development team members can be delegated.

### **5.3 People Involved**

The SA defines the roles of both the client and the SP. As a result, the client understands exactly what they are expected to do. The SP is also agreeing on what needs to be done on the client's behalf. It is critical to involve all client stakeholders who will be responsible for ensuring SA compliance in the SA development process (Allen, Gabbard, May, 2003).

This development principle is concerned with the people that need to be involved in the development process and how best to involve them. The major contention of this principle is that all stakeholders in the SA must be involved in the negotiations. It details a number of different stakeholders and why their involvement is important. With this large number of people involved in negotiations, team work must be heavily promoted. If the stakeholders are not experienced in the development of SAs, they should hire external expertise.

### **5.4 Relationships in the Partnership**

Well structured SA's are recognised as an important step in managing the expectations between SPs and the clients. Although it takes effort to both implement and maintain, an SA is in the best interest of both the SP and the client. By developing a set of mutually agreed-upon service characteristics, clients know which services and response times are provided. They also know at what baseline costs these services are provided (Wylder, 1998). The SP can show that it is providing timely services to corporate management and department users in language that is understandable to them. A SA provides a framework for getting additional IT resources when adding applications or improving existing services.

This development principle refers to the interaction that occurs between the stakeholders during the negotiations and what should result from them. The SA development process is as important as the final document. It is about developing trust. Trust is not something that can be forcibly developed, or something that can be documented. It grows naturally during interactions between the stakeholders. So, logically, the more these parties interact, the more trust is cultivated among the stakeholders. This trust evolves into a conciliatory attitude that is necessary for the SA to be successful once it is implemented.

### **5.5 Scope of Services**

A service catalogue enables a negotiating party to know what services the SP can provide and hence what services can be specified in the SA. The service catalogue is often overlooked in its importance (Smit, 2004). The service catalogue is the primary documented source of information pertaining to what services an SP can provide and at what level of service they can be supplied. Ward (2001).

This development principle is concerned with the identification and definition of services. The SP (either in-house or external) needs to develop a Service Catalogue. This should be done prior to the SA development process and should detail the services that the SP can provide and at what service levels. If services are being outsourced, the major decision is which services ought to be outsourced and which ought to remain in-house.

It is important that discussion of new or additional services not be discouraged during the initial SA development process as this is frequently the initial reason for beginning the SA development process. Once the services to be outsourced have been identified, they need to be defined. SAs are not easily understood by the individuals who need to use them. The stakeholders should expend a large amount of energy trying to reduce the amount of technical and legal terminology used in the SA.

### **5.6 Defining Service Levels**

Service levels are an important aspect of the SA. Yet very often little attention is paid to these until very late in the negotiations. Many of the same issues arise in defining service levels as arise in defining the scope of the services to be outsourced. Maurer, Scardino and Young (2004) state that in order to ensure success in SA engagements, the development team must use a structured methodology to define service levels that is effective in achieving business objectives and driving the desired behaviours from external service providers.

This development principle, although small, has great importance in the development process and refers to the identification and specification of initial, intended and desired levels of service. It is these levels that govern and ultimately maintain the relationship between the stakeholders.

### **5.7 Remedies for Non-Performance**

It may be extremely difficult to terminate an SA immediately and attempt either to provide the services in-house or take on a new SP. One of the easiest ways to ensure that the SP meets its obligations is to put in place management arrangements which entail regular reviews of the SP's performance (Caine, 1997). Initially regular monthly reviews are recommended which can be altered to quarterly or even biannually reviews. These arrangements should also ensure that the users are regularly surveyed to ensure that the SLA accurately reflects what the users want, and that the users are in fact getting the service that they require. The ultimate remedy for non-performance is the termination of the SA. All SAs should provide a means by which either party may terminate the Agreement on the occurrence of certain events (Caine, 1997). Most termination clauses in an SA provide specified grounds for termination by the Client.

This development principle details procedures for situations when service levels are not maintained. Using the metrics and their measurement, the SP should submit detailed reports to the client at regular intervals detailing the service provision and the SPs performance in terms of meeting the SLAs. This should be coupled with regular surveys of users to ensure the SP is performing effectively. Contractual remedies for the SP not meeting the agreed upon SLAs need to be specified. The SA must also include a termination clause. Early termination of an agreement usually results in financial penalties for the terminating party.

## **5.8 Maintaining Flexibility**

Given the inevitability of change, it is important for flexibility to be built into an SA. The consequences for certain organisations of not having built flexibility into their SAs are becoming more evident. One of the characteristics of the so-called "second wave of outsourcing" is the renegotiation of SAs because the SLAs which were originally agreed, say three or five years ago, no longer match the organisation's business requirements (Gray, 2000).

This development principle requires a particular mindset in the stakeholders. It must be recognized that the SA, once implemented, will need to be changed. Recognition of this results in the inclusion of various mechanisms for implementing changes in the SA. It should also result in the documentation of decisions taken during the negotiations so that change implementers can understand the reasoning behind important decisions.

## **6. Conclusion**

It is important to understand the uses and the content of SAs before the development of SAs can be investigated. The different parts of the SA need to be developed in respect of their content and possible uses once the agreement is in use. The creation life cycle is the most significant part of the SA life cycle and is the focus of the remainder of this research.

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