



## **Briefing Paper**

## **Writing SLA's**

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## *Introduction*

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These days we are all service providers. As an IT manager you are unlikely to be the direct consumer of the service you are buying. Instead you will have “customers” who will be the ultimate consumers of this service, so that is usually the best place to start in defining an SLA.

### Why bother?

SLAs are in everyone’s interest. As a supplier you can demonstrate confidence that you can deliver and this can be used for competitive advantage; as a consumer you have a tangible reference against which to judge the quality of service provided and gain recompense if necessary. As an IT manager you can use them to scope your job description as they represent a chance to get your users to say what they really need from you. SLAs are also intimately connected with outsourcing. Companies will rarely outsource a service without one. Equally however, if the IT department draws up its own SLA it can counter the threat by establishing an internal SLA that external competitors cannot match.

## *What is a good SLA?*

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SLAs are formal contracts guaranteeing quantifiable performance under specified conditions. They define Quality of Service and they attempt to quantify it so it can be measured. It is the delivered service to users that matters, not how this is achieved by the service provider. However, whilst they must be user-oriented, they must also be technically precise - otherwise you will never be able to judge whether they have been adhered to or not. Finally, as a formal contract, they have a legal dimension.

The best SLAs:

- Define management domains, or areas of responsibility - everything on one side is the supplier's responsibility. If possible go for a one-stop-shop where there is a primary supplier who takes responsibility for all his supplier's or sub-contractors.
- They only cover the elements of service which really matter - if you don't need a feature badly don't waste effort on it.
- They are precise - if you can't measure a service feature you cannot prove whether it has been delivered or not.
- They contain real penalties - if the penalties do not make the supplier take notice the SLA is meaningless and anyway both parties should intend that the penalties will never be invoked!
- They are non-adversarial - there is no point in trying to nail your supplier to the ground by setting unrealistic targets.

## *Establishing and managing an SLA*

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Since SLAs can be written to cover a wide variety of services there is no unique method for establishing an SLA. However, we can describe a cookbook as some tasks will always apply.

It is more often the case that this is not a green-field application. Some processes with given levels of service will already be in place. So the first task is usually to **analyse the current situation** to establish a base line. Unless you do this you will have no way of proving that an improvement has been made by the end of the process. This will typically involve:

- describing the service, especially its scope, i.e. what is and, equally important, what is not provided;
- determining loads on the service, i.e. current service usage in terms of number of user transactions;
- establishing current levels of service both subjectively from users and objectively from available metrics; and if there is any current SLA; and
- determine its adequacy, i.e. does it refer to all appropriate criteria, are they measurable, etc.

Next, decide where you want to go. This is essentially **requirements capture** involving:

- agree on the business level drivers - this is important as improved service may cost more so you will need some justification and prioritisation;
- establish the critical service features, e.g. for a network this is likely to be the availability of business-critical links, throughput and, increasingly these days, delay;
- consider growth and if possible obtain parameters for a number of different scenarios - you may not be able to predict the future, but at least you can plan for various alternatives and ensure that the service provider can meet the most stringent and flexibly respond to change;
- establish (user level) service level objectives, i.e. targets for process improvement.

Next some **modelling** is in order. This helps you to translate requirements into measures of quality and the model can be run again with changed parameters. This is important as

you usually find relationships and trade-offs between different service parameters such as throughput and delay and you rarely get it right first time. Aspects of this are:

- the model should relate load on the service, e.g. usage volumes, and service level objectives such as maximum delay;
- the service you deliver may depend on several services provided to you and the net effect of each in terms service levels must be related, e.g. adding delays, discovering throughput bottlenecks, maximum leadtimes and any of the other dependencies you come across in project management;
- the model must quantify the problem or you will never get consensus on whether service levels are met or not;
- never underestimate the importance of specifying the appropriate metrics including measurement periods, for example the time period over which network availability is guaranteed on a business critical link should be as short as possible - 99.9% of a year could mean a degraded service for a complete working day!

Now you should be in a position to **write your SLA**. The contents are described below. Establishing the penalties will require negotiating skills and it will often be useful to get some advice on what the industry norms for both performance and penalties are. There is no point in either setting levels below the industry standard or setting them so high that the provider has to charge you the earth for providing a gold standard that you do not really need.

Finally, SLAs need managing so ensure there are **regular review meeting**. These should include:

- continuous monitoring of service levels over the period;
- consider any changes of circumstances, e.g. the effects of adding new users, sites etc; and in the longer term
- industry standards change, usually for the better, so the SLA should be a living document renegotiated to take advantage of these improvements in service or decreases in cost.

## *Contents of an SLA*

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Again, the precise contents of an SLA will be different in every context. They should be bespoke, since an off-the-peg one is unlikely to address your individual needs and concerns. However, some generalisations are possible. A generic SLA should address the following issues:

- Define service being provided, in terms of parties to the contract, boundaries, responsibilities and content of the service, e.g. the set of features that comprise it. It is often worth including an explicit statement of what it does not include if this is not obvious.
- Specify operating conditions, environment and constraints in which the service will operate.
- Specify availability of the service usually in terms of a percentage over a defined time period.
- Specify volume of user events that can be performed in a given period.
- Quantify timeliness, delay or response times, usually in terms of a percentage of events, e.g. round trip acknowledgements or user transactions, which will be completed within the specified time.
- Define procedures for reporting and rectifying faults, e.g. response times, Mean Time To Restore, etc.
- Prescribe user or consumer responsibilities, so that the provider can perform his part of the bargain.
- Describe how the service is to be monitored both in terms of report contents and the reporting period.
- Provide unambiguous, technical definitions of all parameters or metrics which form the basis of the SLA.
- Specify a review timetable for monitoring service levels.
- In the longer term, allow for renegotiating the SLA as industry norms and your needs change.
- Provide guarantees in terms of compensation if service levels are compromised.

## *Tools*

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These days you can even get tools which support SLAs. These are usually performance monitors which can be specifically tailored to produce reports in terms of the exact metrics in your SLA and highlight the crossing of specific performance thresholds.

## ***Contact Us***

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