

Service catalogue and SLM: eight steps to success

*Everything should be made as simple as possible,
but not simpler.
Albert Einstein*

The article offers a structured approach to SLM process and Service catalogue design for an internal IT department. The approach describes in details the following steps:

- Setting the project goals and objectives
- Organization and communication analysis, selection of the basic service management organizational model
- Adaptation of the selected model to the needs of the company, planning for support of organizational changes to be performed
- Deciding on the organizational and functional scope of the service management implementation (including service relationship within the IT department)
- Planning and performing service identification
- Designing the service catalogue(s) and SLA structure
- Designing the SLM process itself
- Launching the process and ensuring that process is actually followed (official introduction of the signed-off process, automation, trainings etc...)

Setting the goals

The very first and very important step of an SLM project is the goals setting. It is reasonable to start with the benefits that can be achieved from the service approach to IT-to-business relationship and proceed with feasible additions and/or details where necessary. It may sound trivial but it is nevertheless useful to identify key stakeholders of the project and to link the project outputs with their interests and concerns. For instance it is possible that Business like to see the SLM process as a means of measurement and control of IT's behavior while IT management seeks for economically justified way of managing technologies. Consistent and clear project goals help to make sound decisions during the whole project lifecycle.

After agreeing on the goals we can start to analyze the current situation. And one of the main aspects to consider is IT organizational structure and current practice of IT-to-business relationship.

Service approach and organizational structure

Although ITIL® is declared to provide an organization-independent process model, in the reality IT structure and the practice of its interactions with business may significantly influence the Service catalogue and the SLM process design. The most widely used configurations are the following:

- Domain structure
- Functional structure

Fig. 1. Domain-based interactions

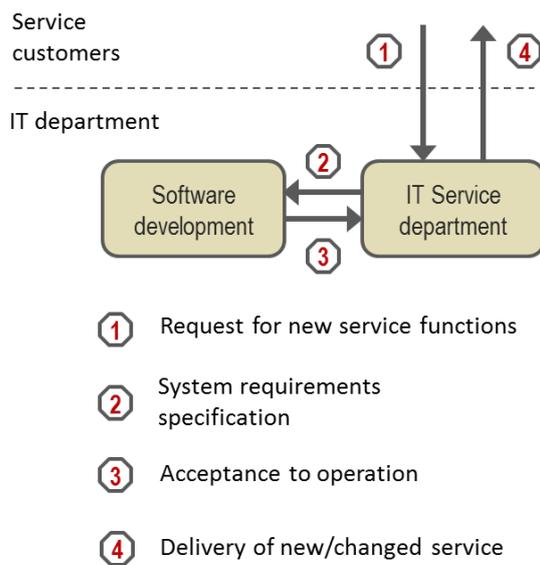
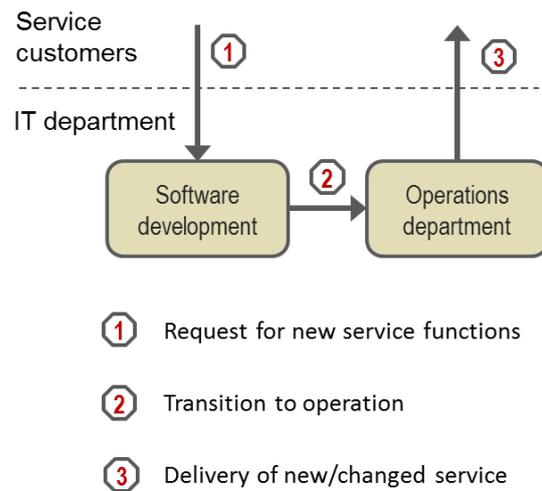


Fig. 2. Function-based interactions



Domain structure

The domain-based interaction scheme is illustrated on Figure 1. This is service relationship – just as in the book. An IT department acts as a service provider and a single point of contact and responsibility for IT-based enablement of the Customer’s business processes including the full lifecycle of the supporting information systems. Software developers and/or vendors’ participation and the governance of their services are unseen to the Customer – it is within the Provider’s responsibility as a part of the service provided. (Compare with ITIL’s service definition: *...without the ownership of specific costs and risks*).

In large companies IT department normally consists of several specialized divisions supporting a specific business domain. For instance in banks we often see such domains as Retail banking, Corporate banking, Investments, Operational back-office etc. Some extra divisions such as Reporting or Infrastructure management can be organized in addition.

Functional structure

Way more often we see the function-based structure as depicted on Figure 2. IT development and IT Operations are relatively independent functions in this structure and each has its approach to interactions with business and its own points of contact. It is clear from the picture that this structure does not provide a holistic management system covering the overall service lifecycle. Neither does it offer a single point of contact and responsibility for the services provided. Each function is responsible for a part of the service lifecycle and only to some extent contributes in the business-oriented service outcomes. The scale of the organizational changes required to implement an overall service approach is much wider in a functional structure than in domain one.

How organizational structure influence the Service catalogue and SLM process design

Two types of organizational structure and related interaction patterns represent two typical ITSM models described in the following Table 1.

Table 1. Basic ITSM models

	Functional structure	Domain structure
Most probable cope of ITSM approach within an organization	Operations department	IT Service department

Functional scope of SLM process	IT Systems operations and maintenance	Design, development and operations of IT systems
IT service definition/content	IT Systems operations and maintenance	IT enablement of business processes
Service definition and catalogue design is based on...	...IT systems or business processes	...business processes
IT Service owner is...	IT System administrator or business analyst	Business analyst responsible for specific business domain
Customer(s)	A number of business managers heavily dependent on the IT system	The business process owner or authority group
Change management purpose	To ensure operational environment protection and reliability	To ensure IT agility for business requirements while keeping operational risk at acceptable level
Change triggers	An IT system/product release readiness for implementation	Business request for a new or changed IT service
Project management acts as...	...RFC's initiator	Change management toolset ⁱ

These models provide a starting point for service management system design. There will be deviations, mixes and compromises in practice to consider in the context of particular organization's capabilities and constraints. For example, you can appoint two people responsible for a particular service – one from the operational team and another from the R&D team. It would work especially for holding-like companies where R&D is centralized and operations are distributed across branches. Another option is to appoint a dedicated person as a service owner (may be even a third-party employee) to make this role responsible for coordination of development and operational team's interactions and for contacts with customers.

Though when adapting the models described to your specifics it is worth deciding at the very beginning on the organizational solutions you will have to implement in order to make the resulting configuration effective and realistic. How, for instance, would you ensure the overall accountability for a service if you decide to include development team in your ITSM approach scope while working in functional structure? What kind of extra organizational changes would you have to implement? Or how would people from the operational team negotiate new service requirements with the customers if they appointed service owners in the domain structure? How would you ensure consistency of service lifecycle management if a new release influences several IT systems? And how would you ensure the balance between agility for business development and operational safety and reliability?

Case. We were planning an assessment of a Customer's ITSM processes. While scoping the project the customer offered to include all IT teams except the Service Managers group for the following reason: Anyway they don't participate in anything or influence anything. It was clear that the idea of service-based relationship between the Business and IT had not been really adopted in the company.

Service management and software development

Generally, to ensure consistent service lifecycle management we have to somehow include software development in the scope of service management system. It may not happen at once but later we will surely need it. In the functional structure it is possible to start service management in the operational environment. But even in this case we have to consider expanding the ITSM scope to R&D function in the strategic perspective. Otherwise functionality of systems – i.e. utility of most IT services – will have to stay out of ITSM control and responsibility. The service provider can only be responsible for operations of IT systems if it

leaves development out of the scope. Moreover, without Development involved a service provider has very limited capabilities to perform a Service Improvement Program (SIP).

Service relationship within IT service provider

The next step is to perform feasibility study for introducing a supporting services catalogue and service relationships within the service provider.

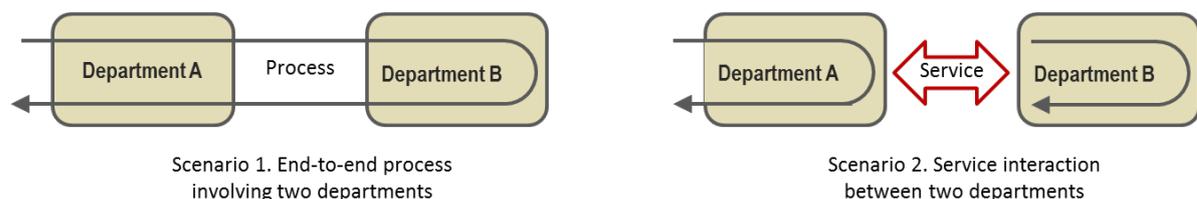
Reading ITIL and some other sources one can naturally form an impression that a service catalogue should always include business services (customer view) and supporting services (internal view). The external part is somehow related with SLA's while the internal one leads us to OLA's within the service provider's organization. Well, the idea looks reasonable: we can agree on some service targets for the infrastructure supporting the business services as well as on operational activities. But we have to realize that introduction of an internal catalogue will bring us some specific risks together with the benefits we expect.

There are two options to choose from if we want a subject – someone or something – to provide desired outcomes for us. The first option is *management of subject's assets and activities* (may be in form of processes). The other one is getting services from the subject which means *managing its outputs* without actually influencing (or even being aware of) its assets and activities. The latter is the core principle of service relationship. There is normally no sense in combining the options since they imply different approaches to responsibility sharing between a customer and a service provider. In the first scenario (end-to-end process) a customer is accountable for the final outcome while provider is responsible for his contribution according to the rules set by the customer. The second scenario means that a customer defines requirements for the outcome and the provider is accountable for delivery of that outcome by his own means and on his own riskⁱⁱ.

Transition from the first model to the second one is actually transition from management to governance. It is clearly stated in ISO/IEC 20000-1:2011 standard (specifically 4.2 - Governance of processes operated by other parties). It is vitally important to realize that service approach to relationship with providers implies giving them significant autonomy in such aspects as activity and asset management. The main criterion is reliable and consistent output from this management system i.e. quality services.

The difference between the models described is depicted in Figure 3. It is clear that “switching on” the service relationship leads to increasing autonomy of Department B. Actually the interaction between departments A and B follows the same rules that apply to interaction with external providers – except there is no legal contract and probably no payments as well.

Figure 3. Processes- and services- scenarios of interaction between departments



But when dealing with an external provider a customer is able to influence the outputs received and the relationship performed by normal commercial means working on a competitive market. These means are not applicable to an internal provider though. That is why by introducing service-based relationship internally a company may worsen internal tensions and conflict instead of solving them.

Service-based model is more applicable for holding structures and large companies with decentralized IT infrastructure. It works better at domain structures than at functional ones. Sometimes it is considered preparing the organization to planned outsourcing of some functions. It can work fine and it has its use scenarios but it is important to remember the following:

- Internal service-based relationship should have a sound business-case. Specifically, a company could implement internal service specifications to control dependencies within

service infrastructure without introduction of OLA's. The IT department and its processes would keep their consistency in this case.

- In order to mitigate the risks of internal conflicts you will need to ensure that all departments involved in the service relationships are correctly positioned and that all agreements are followed by all parties with clear consistent and inevitable consequences of breachesⁱⁱⁱ. Make sure that you have enough management capabilities to ensure it.

Service identification

Definition of the service and product catalogue is strategically important for any commercial supplier; it directly influences their ability to compete and their development perspective. Strategic marketing is sufficiently covered in many specialized studies and articles; some basic information can be obtained from *ITIL Service Strategy* (ISBN 978-0113313044). However in non-commercial scenario of internal IT department services are defined to make a picture of de-facto relationship that have been actually formed between IT and business customers. It means that we do not create new service offerings to fulfill market's demand but make a revision of the services being delivered thought not formalized yet. Strategic marketing techniques are not sufficient for this task. What can we recommend?

First of all, services have to be defined in Customer's language, as close to their interests as possible. If you provide basic information technologies in a holding structure and your customers are local IT groups it can be a good idea to define services based on IT systems and solutions (such as Active Directory, server hosting, VPN connection etc). But if you deliver your services to business customers it is more relevant to define them based on business processes supported. It can probably happen that the business processes in question are not formalized as well, but full mature formalization is not actually necessary for service identification. It is enough to have a list of the business processes and to understand their purpose. An industry-specific model such as eTOM or Process Classification Framework can help. This is not easy, but we are sure it will be repaid: a catalogue designed this way will suit business interests, it will allow us to identify and appoint real customers of the services, to set up customer-oriented KPI's for services etc.

While identifying IT services "from business processes" you will find a number of services providing some basic technology solutions without direct link to a particular process. These are such services as Standard workplace, e-Mail, Internet access and so on. We define this type of services as "Basic IT services" and identify them from the IT systems they are built on but they do not become the main content of the catalogue.

Secondly, it is a good idea to minimize the number of services associated with multiple customers (not users – multiple users is a normal situation). To achieve this you can scope customers wider or split your services in the catalogue. The more services you have clearly associated with one customer the easier you will agree on service targets and the easier it will be to design a cost model for the service.

Thirdly, services are to be detailed enough to define a set of measurable and meaningful metrics and quality criteria. It is hard to make a useful metric set for a high-level service such as "IT-enablement of the Sales process" in a company that uses multiple sale channels: a retail network, partners, internet, sales reps etc. You will face issues when defining KPI's content, customers, measurements...

Fourthly – to balance the previous recommendation – try to define as few services as possible. Different organizations will have different perception of "few" but even for large ones we recommend to limit the catalogue with 100-150 services. It is an achievable target according to our experience. The longer you service catalogue is, the more resources you need to manage the services.

And lastly, avoid overlaps in the content of different services – the best way to create confusion and inspire conflicts. Confusion happens when you perform service-based incident classification; conflicts start when you discuss service requirements or report on service performance based on confused classification.

With these recommendations in mind we can start service identification. There are three mandatory attributes that must be filled for each service identified: name of service; description of service and the most probable customer (business unit). The resulting list should be agreed with every customer – before we start designing the service catalogue or developing SLA's. Only after we have customers' commitment we can start building a service catalogue (or catalogues).

Service identification and service catalogue design is a complex project which can take significant time and effort. It is immanent complexity. Don't give up after first difficulties, work hard to complete this task.

Service catalogue

You can find various samples and template of a service catalogue in the Internet and in ITSM books. To find the one that suits your needs best you have to change the perspective: instead of asking "how to build a catalogue?" ask yourself "Why do we need a catalogue?". The answer will affect your catalogue's structure, content and format.

Generally a service catalogue can address three objectives:

- To define orderable services for the customers
- To provide a single source of information regarding the services delivered and their main characteristics
- To set up the standard rules and conditions for service delivery agreed for the organization

Let's look at them in details.

Catalogue for ordering services

Well-structured and nice-looking catalogue is an important tool of any commercial service provider. It is also useful when a provider offers services to companies within a holding or group. It works fine if a customer needs a possibility to choose new services that haven't been provided before.

Again, there is something specific in internal service provision scenario. For instance the very act of service ordering does not necessarily exist in internal relationship. Quite often the catalogue describes the services that have been being provided for years and there is no need to order them. In our practice this is a large majority scenario.

Important notice: There should be a clear distinction between *service catalogue* and *service request catalogue*. For example, the service of "Management reporting IT-enablement" may consist a number of requests such as request for access to specific reports.

Why don't we consider service requests as services? Why can't we create a service group named "management reporting services" considering requests as services within the group?

The main reason is that an IT service usually means continual operational activities of a service provider that is not triggered by any request. These activities form an integral part of the service and provide significant part of the business value created by the service. That's why SLA's are normally agreed on management reporting service (including access), not on just access provision.

So, only some organizations really need a nice and orderable service catalogue while an actionable catalogue of service requests is vitally important and mandatory. The service request catalogue is designed and developed by SLM process and used by the Request fulfillment process.

Catalogue as a service directory

A single source of information about services under control is a must-have for any service provider. This catalogue does not require any special formatting or make-up. It should be correct, sufficient and up-to-date; it should help to find right answers for various service management questions. For instance: what services do we have SLA's for? Who is responsible for agreeing SLA's for those services that don't have them yet? Which services are delivered to a particular customer? Which services support inter-related business processes performed by different customers? Which SLA's are due to review or retire? What services is a particular service owner responsible for? And so on...

Normally this catalogue is presented as a spreadsheet (in a specialized tool or even in Excel) containing a list of the services under control with main characteristics of each service and links to related service documents.

Catalogue as a standard service agreement

This is an extension for the previous two types of catalogue. It includes the basic rules and conditions of service provision and consumption, normally as a standard for the organization. It makes a standard SLA or an SLA template out of the catalogue.

How to choose your option

Using the classification above as a sample you can design your own catalogue based on its purpose. The result will most probably look different from the templates you can find in the Internet but it will most probably work and suit your needs.

SLA structure

ITIL Service Design (ISBN 978-0113313051) offers a number of typical SLA structures:

- Customer-based SLA: An SLA per customer, covering all services provided to the customer
- Service-based SLA: an SLA per service, covering all customers consuming the service
- Multi-level SLA: a basic service level is defined in the common high-level part of the agreement; if needed, special arrangements are documented for some of the customers in addition to the common one.

We find multilevel SLA structure useful for large companies; for small and medium companies individual SLAs (one service to one customer) work fine. This approach ensures that we have reasonably simple processes for initial agreeing and subsequent review of the SLAs.

What is really important is to decide on the SLA structure *before* you start designing the SLM process since it will significantly affect some of the procedures.

SLM process

Finally, having defined project goals, scope of the ITSM approach, organizational structure as well as catalogue and SLA structure we are ready for the process design.

Details of the process may differ from company to company but the common purpose as well as main activities and typical CSF's can be defined for most of the organizations.

SLM process purpose is to ensure the quality of services provided by agreeing on and control of service provider's obligations and by establishing the continual service improvement practice.

The main activities of the SLM process include:

- Creation and updating of the service catalogue (although in ITIL service catalogue management is described as a separate process since 2007, we find no reasons for this separation in the context of this article)

- Arranging, signing and updating of SLA's; establishing service monitoring and measurement
- Control of service quality and regular reporting on service achievements
- Service review and service improvement initiation
- Performing the service improvement program (SIP).

The following critical success factors (CSF) should be addressed in the SLM process design:

- Regular and effective communications between IT service owners and customers
- Sufficient level of authority delegated to service owners/managers, effective motivation system
- Effective collaboration of Development and Operations for introduction of new or changed services (especially in function-based organizations)
- Established organizational solution for solving conflicts between parties (within service provider as well as between provider and customers)
- Regular and effective control of IT services quality by the top management of the service provider (preferably ongoing control during the period)
- Service achievement should be taken into account in the motivation system design
- Established SIP/CSI practice

This list can be used as a check list during the design phase of your SLM project: how do SLA or catalogue or procedures support the CSF's? The same check can help also at the stage of SLM tool design, specifically when you decide on monitoring and measurement tools. When the process is started the list will tend to grow and change according to your objectives and specifics.

Conclusion

As a conclusion to the article the following approach to SLM and service catalogue design can be stated:

- Setting the project goals and objectives
- Organization and communication analysis, defining the service management organizational model (see Table 1)
- Adaptation of the selected model to the needs of the company, planning for support of organizational changes to be performed
- Deciding on the organizational and functional scope of the service management implementation (including service relationship within the IT department)
- Planning and performing service identification
- Designing the service catalogue(s) and SLA structure
- Designing the SLM process
- Launching the process and ensuring that process is actually followed (official introduction of the signed-off process, automation, trainings etc...)

IT managers should get ready to be patient: organizations get used to SLM process much longer than they adopt operational processes such as incident management. One of the main reason is that SLM implies significant organizational change which is far more difficult than a new system/service/process implementation.



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ⁱ See Chapter 3.7 of «ITIL Service Design 2011 Edition» ISBN 978-0113313051.

ⁱⁱ Roman Jouravlev. A business view to ITSM (in Russian) <http://www.cleverics.ru/ru/subject-field/articles/434>

ⁱⁱⁱ Colleen M. Young. Effective IT Organizational Design. Gartner, Inc. 2008.