ANATOMY OF A SERVICE

A Practical Guide To Defining IT Services

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1 EXECUTIVE SUMMARY

For the last few years, there has been a great hue and cry over a framework sweeping IT shops around the globe called the IT Infrastructure Library (ITIL®). This is good news and bad news. The good news is that a very viable framework for managing IT and its relationship to the business is gaining traction steadily every year. For those of us who have picked up the ITIL mantle, we see adoption as a good thing. The bad news is that many still see ITIL as a process framework – the perception is that ITIL is all about processes.

That cannot be further from the truth. If anything, processes are the means to an end. The end is IT SERVICE MANAGEMENT – go ahead, say it again – IT SERVICE MANAGEMENT. The operative word here is Service. Our goal, ultimately in IT, is to effectively and efficiently manage and deliver services to our customer – the business. An IT Service Management (ITSM) mindset shifts the focus from the inward perspective of managing only technologies to a view of what do we need to do to deliver value through services.

ITIL is the underpinning of ITSM. The ITIL framework and the evolution of the thinking in Version 3 of ITIL has brought the concept of managing IT services for the benefit of the business – IT's customer – front and center.

But this notion of managing services has some pitfalls. First of all, we need the processes defined as the ITIL framework to effectively and efficiently manage IT services – more on that later. But a greater challenge is understanding and defining a service. For an organization's ITSM effort, understanding and documenting services can be as elusive as the proverbial hen's teeth.

The focus of this paper then is to describe the Anatomy of a Service. This anatomical description is intended to provide grounding in what a service and a methodology is, to aid organizations in defining IT services.

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2 UNDERSTANDING SERVICES IN AN ITSM PROGRAM

In times past, when IT organizations initiated an ITIL or ITSM improvement project, there was an interest in doing the *Incident-Problem-Change* process dance. In other words, IT shops focused on improving those processes that would improve operational stability and, in many cases, this is as far as they would go.

However, in the last 18 months, we have seen a shift from focusing exclusively on operational stability to one of understanding and documenting what services are delivered today – in some cases as the entry point for an ITSM program.

But why is understanding the concept of a service as important as say Incident Management, especially as an early gate in the ITSM program? If we are *doing* ITIL, isn't it sufficient for IT organizations to design, build and implement key processes and hold off worrying about services later on when we begin to develop the Service Catalog or focus on Service Level Agreements (SLA)s? We have time…we can wait….no… sorry, understanding services is vital to the overall ITSM effort, even at the early stages.

An example – the organization has implemented Incident Management but has not identified its services as of yet. One of the key activities is accurately categorizing the incidents as they are received at the service desk. I have seen situations where, when left to their own devices, service desk analysts have documented better than 10,000 incident categories. The reason for the plethora of classifications was that they had no guidance as to how to align an incident to what was failing so each analyst made up their own system 10,000 times.

A service can provide guidance for incident classification. For instance, when an incident call is received at the service desk, the analyst could quickly sort through the service based on what the user was doing or trying to do at the time of the outage and arrive at an initial service-based classification. Then, with the help of a CMDB, which uses a service as a base element in the data structure, the analyst can then sort through what particular part of the infrastructure has suffered the incident. The power of accurate incident data extends well beyond Incident Management and the springboard for accurate data is the service description.

2.1 Definition Of A Service According To ITIL V3

So what is a *service*? By definition, "a *service* is a means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks."[1] Of all the thousands of words in the ITIL Version 3 texts, this definition is the most compelling and is the reason that one might look at processes as a means to an end and not the end itself.

[1] Office of Government Commerce. Service Strategy, Majid Igbal and Michael Nieves, page 16 – 2007.

Let's break this definition down into its fundamental components, or its anatomy, and see how it helps with understanding and providing guidance for identifying, documenting and ultimately managing IT services.

2.1.1 Value

…means of delivering value to the customers – The first question this begs is who is the customer? In its simplest setting, it is the business. But, IT is not that simple. The customer is any recipient of a service for which value is created, enhanced or supported by this *entity* we will call a service. The customer can be within IT, such as an architecture group supporting an application design team in the crafting of a software design, or the business in terms of the accounts payable unit using the invoicing application to process customer bills. Or, it could be the ultimate customer of the business – those that pay hard earned cash for the products of the company, as they access the company's website and order a widget from the product catalog as an e-purchase. The answer to who is the customer can be *"it depends"*; but, it is important to always understand who is benefiting from the service and why.

This brings us to the concept of value. Value suggests that if a service is valuable, it provides a benefit to the customer sufficiently enough that the customer would be willing, in an economic sense, to exchange money equivalent to the benefit that is received. In other words, the customer would pay for the derived benefit based on the customer's valuation of what's in it for me – or the service "WIIFM."

Think back to how you established the notion of value the last time you made a purchase. Did you look at an item in the store and think that what you were holding in your hand was not worth what the store was asking for it? The product didn't have enough value to YOU for you to give the store the asking price. And, of course, we have all said the words – *what a bargain this is!* Or putting this differently, the asking price is far less than what you believe it is worth at least in terms of the benefit you will receive from using the product in hand.

Why is this important? Value is ALWAYS in the *eyes of the beholder* or, in this case, the customer. In the practice of service management, we focus on our customers and what they consider important or of benefit to them based on what IT can do for them (in terms of our services).

This relationship is important for two reasons: 1) it will eventually form the basis for validating service-based costs and costing models with the customer and 2) it will aid in defining the basis for a positive working relationship between the service provider and the customer. In other words, *I, the service provider, can provide better value than anyone else AND I can do that because I understand what is important to you and what you value most*.

2.1.2 Outcomes

…. *by facilitating outcomes customers want to achieve* – As we think about the definition and begin to formulate our service anatomy approach, the most important words of the definition are these seven. At this point in our discussion, you understand the importance of identifying the customer and the notion of value. Those two concepts are reiterated here in the words *customers want to achieve*. The real issue is what it is they want to achieve that cements this concept of value and becomes the lynchpin in understanding the basis of a service.

What the customer wants, as the value proposition, is for someone (in this case IT) to help the customer do something for themselves – presumably because they can't or don't desire to do this themselves. And the most important concept is that what we're doing for the customer is outcome based – and is a requirement or at least a desire of the organization. Let me clarify this point in business terms.

Organizations and organizational units establish business goals and objectives. If IT can do or support an organizational outcome (through a service), function or units meet their operational, tactical or strategic goals and that would be a very positive development. The customer would see this as valuable and would be willing to pay for this entity we are calling a service. Notice, though, that a service is framed in terms of what we, as service providers, actively do for the customer. A service is dynamic; it is in motion; it must be exercised in order for it to have value for the customer. It is dynamic because it must be brought into play on a regular and consistent basis by the customer to create value.

If we carry this thinking one step further, an IT service is a logical or ethereal concept. A service is, in reality, the aggregate of the human and technical resources that are brought to bear to support a customer's outcome. And – this is the important part – those outcomes can be and typically are very specific, and are crafted in terms the customers understand and typically manage to. This means that, by aligning this concept of a service supporting the customer and customer outcomes, we can bring into tight focus the specific parts of the infrastructure that support directly the customer and create customer value – of course something they would be willing to pay for. This is the *ah-ha* moment in defining the service anatomy. For the first time, we now have a means to define the linkage between the technology components and what they specifically do for the business.

Think of a service portfolio meeting where investment decisions are being considered for proposed upgrades to the network or the servers. If we do a proper job of defining the alignment of the integrated infrastructure as a defined service and link that service to business outcomes, the line of sight of the impact of changes in the infrastructure on business outcomes is quite powerful. For example, a compelling business case could be built to support upgrading or improving the network or servers (admittedly not very sexy), which are highly integral to the overall success of other value creating IT services.

3 EXPLORING THE ANATOMY OF A SERVICE

So *what* does all of this have to do with the anatomy of a service? Actually, it has everything to do with it. The graphic below depicts the service anatomy. The service anatomy provides a guide for identifying, understanding and documenting services.

To answer the *so what* question and to fully grasp the approach to defining and documenting a service, it is important to understand the basics behind the approach. ITIL V3's definition of a service is the basis for this design – thus the need for the build up. So let's break the anatomy down into its parts.

3.1 Defining The Outcome Statement

The first 3 boxes help us define the outcome statement.

Every organization establishes measures of success. These measures begin with the reason the enterprise exists – its vision and mission – which, in turn, are supported by the organization's strategy and goals. The strategy and goals lay out a path for the organization and its constituent parts to follow, which is aligned with the basic tenets of the organization. They define the major *critical success factors* for the organization.

And most organizations are organized in such a way that they will operate efficiently and effectively by assigning accountability, roles and responsibilities to various functions or Lines of Business (LOB), which can be further broken down as work units and so forth. Each of these organizational sub-divisions will also have measures of success or direction as established by its own strategy, tactical plan and goals. These strategies and goals and their accomplishment can be measured, and their attainment is considered valuable to the organization.

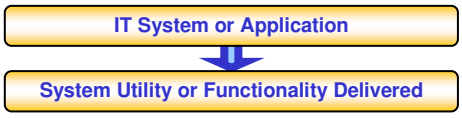
Thus, achieving strategies and goals is one level of creating value for the organization and they are valuable outcomes. However, strategies and goals do not describe how the work is organized and executed to achieve these valuable outcomes.

3.2 Defining Business Processes & Outcomes

Since the dawning of the Industrial Revolution and organized group work, functions or work units have been organized to orchestrate deliverables by defining work activities (and organizing the necessary business assets) in terms of business processes. By definition, business processes are measurable and have a specific outcome in mind when they are designed and implemented. Each process will use all the resources and capabilities at its disposal to achieve the process outcomes. It is not a great stretch of the imagination to understand that not all of the resources and capabilities that are required to support the business processes are self-contained with the business unit or function. The unit will call upon other organizational resources to support the business processes or potentially look outside the enterprise for support.

Business processes are implemented to support accomplishment of work unit goals and objectives. Accomplishing these higher order objectives requires that the process achieve the specific outcomes expected of the work activity. These outcomes, as they are measurable, form the basis for scorecards and other tools to report the effectiveness of the work place.

3.3 Defining IT Systems To Support Business Processes & Outcomes



In today's organizational setting, IT is deeply embedded within the mechanisms of business processes. One would only have to look about the workplace to get a sense of how sweeping is the use of Information Technology in the normal course of business

operations. Desktops, laptops and the like are on every desk and, in many cases, every conference room, lunch room table and even down the street at the coffee house. IT is widely accepted as part of the way the business does its job.

And the way most (it's safe to say that a number north of 95% is accurate) business processes make use of IT is through applications. When the accounting clerk needs to do his/her job, which requires using IT, they will put fingers on keyboards and perform their job using an application. It is for that reason that we want to know what applications are useful to support specific business outcomes of particular business processes. The application is the portal into IT and the starting point for defining an IT service.

It is this boundary between the business process and the need to use IT resources to help achieve a particular business outcome that forms the genesis of an IT service. But there is one more critical point that needs to be made about the applications as the portal into IT.

To clearly understand a service, consider the description of a technology interface and how a clerk or supervisor is using it. We define that interface in terms of the technology's feature/function (utility) the process practitioners are leveraging to accomplish a specific task within a process in support of the process outcome. The clerk could care less what is enabling the application (or the module he is using to achieve a business outcome) – the type of servers, operating system patch level or network protocols. It doesn't matter other than the fact that when the technologies are brought together, the business outcome is achieved THROUGH the use of the feature and functions of the application.

3.4 Defining The Service

Thus, a service is the collection of all the technologies and other resources that are brought together to facilitate an outcome (sounds familiar, right!) day in and day out.

We are now at a point in our anatomy where we can define the service. The definition is based on this interface between the business process and the service or the feature/function of an application.

There are a variety of business outcomes that can be achieved and there are various services that must be brought to bear to support the overall enterprise. To understand them all, we must understand how the business leverages IT and describe what that intersection is doing for the business. For instance, the service might be supporting claims check processing, manufacturing forecasting, business intelligence and reporting, inventory forecasting and order placement. For many organizations, this would be a small list of service descriptions that one might uncover when completing this analysis.

So to complete the definition exercise, there are a set of steps that should be followed:

1. Identify the business processes and their outcomes in a particular function or unit.
2. Identify the applications that are accessed and describe in as many words as needed what the application is doing (features and functions) to support the business outcome (e.g. maintain supplier contracts; obtaining supplier Product Lists; obtaining and reviewing the Supplier Catalog; comparing and ranking suppliers by product).
3. Narrow the description down to 6 or 7 words – this label forms the starting point for the service description (e.g. Manage Vendor Relationships).
4. Continue the analysis, identifying other like-kind services – supporting similar business outcomes with similar feature and function. Aggregate all of the descriptions, regardless of the number of applications involved, into a single service description.
5. It may be necessary to combine some of the identified services as the list grows. We would suggest looking at higher order business processes or outcomes that can be supported by combinations of services and define *über-services* or supersets of services. These service supersets might be the financial processing services, or the claims processing services, or the manufacturing support services and so on. These supersets of services might be those that a division or functional VP might be interested in subscribing to for their department because the success of the function would not be possible without the entire service group.
6. Point 5 is a key point in deciding how macro or micro to make a service description. The guidance that we have given to clients is that the decision hinges on what services managers would subscribe to in order to assure the day to day functioning of an operational group. If the superset concept makes sense, as the VP would need all the services in the superset, then the individual services are defined, documented and described but captured for documentation purposes in the Service Catalog within the body of a larger service description.

So, as an example, the VP – Claims would be interested in a line of services specifically oriented to the claims department. Claims services would include a bundle of the following individual like-kind services that are needed to support the claims function: Claims submission, Reserving, Third Party Administrator (TPA) assignment, Litigation management and Claims payment.

Another potential service superset would be to align tiered services or those services that may not necessarily be aligned to support a given function or LOB but can be grouped in a way meaningful to managers when they wish to subscribe to a service for the work unit. For instance, the desktop support service could include the following nested or tiered services: laptop/desktop support, VPN access, 24X7 service desk support and the standard productivity suite image.

Finally, some organizations may decide that it is appropriate for services sufficiently unique that they stand on their own and be individually subscribed. Examples might include PDAs, web conferencing or project management. In this case, these micro level services would be separately documented in the catalog.

3.5 Measuring Success

Then, last but not least, a key aspect to keep in mind with respect to service definition is measurement. There is the old management saying that *you can't manage what you can't measure*. So the last step in defining services is to capture key metrics or service success criteria that will demonstrate whether or not the service is supporting the business outcome to which it is aligned.

Success criteria can be defined two ways. The success criteria can be aligned with the nature of the feature and function (utility) that is supported, and how effective the feature and function is in meeting its design requirements or user expectations, and thus supporting outcomes. Or, another metric could be the conditions that must exist to assure that the feature and function is delivered consistently over time – the warranty of the service. Conditions such as those typically found in an SLA (and of course the underpinning OLA and underpinning contracts) such as availability, transaction throughput, capacity constraints and so forth, can be the substance of these metrics. Of course, there must be a linkage between the metric and the business outcome supported if the metric is to be useful as a service success criterion.

In a nutshell – that is about it – the anatomy of a service from beginning to end. The approach is fairly straightforward and builds from the V3 definition of a service; however, we are not done. In the words of a wise sage – *some assembly is required*. So a suggested approach for defining organization services would be:

- The scope – what part of the organization is within the service definition project and what will be left to a later phase or not addressed at all
- This is a project – organize the resources and activities that are necessary to complete the work as defined by the scope
- Identify the key resources – other than a project manager or lead, the Service Catalog (SCM) or Service Level Management (SLM) process owner(s) should be engaged at least as a sponsor(s). In addition, the respective SCM or SLM process managers would ideally serve as part of the definition team or in a project governance role. If Service Owners or Product Owners have been identified already, then they are naturally part of the governance role and play a hand in the interviews

The procedure to identify and define services functions is best done through a series of interviews. So there is a need for service interview teams. Individuals with an understanding of the business and technology arenas are helpful, but a requisite skill is

that members of the interview team(s) should have demonstrated a capability to conduct structured interviews in the past.

- Grab the organization chart – for the part of the organization that is in scope, identify the logical process work groups. This will be useful when identifying the business representatives in the next step
- Business representatives – as the service definition work of necessity engages the business, business representatives should be identified and time scheduled for interviews. If business representatives are not available, a viable surrogate for the business would be the business relationship managers who work directly with a business function or unit
- Follow the steps of the service anatomy methodology to document business processes, applications accessed and a definition of the required feature and function
- Collate and aggregate the data – look for patterns across the service definitions. Is there common ground that can be leveraged regardless of the number of applications that seem to do the same thing? In this case, smaller is better – meaning collapsing and condensing the descriptions – but be wary of taking too sharp a knife to the descriptions and collapsing to a point where the final service description is meaningless
- Validate your findings with the business and IT leaders – do the descriptions make sense? Would the descriptions provide a guide for careful and considered decisions about what is required of IT to support the business? But MOST important is whether the service descriptions would support future decisions to manage and change the service portfolio for the benefit of the business. The service descriptions should provide the appropriate *line of sight* from the business to the infrastructure, such that when a change is made in the business or if a change is contemplated in the technology arena, the wise portfolio manager would be in a position to analyze and demonstrate how changes to a service will have a positive impact on the business.

Conclusion

In closing, I leave you with the thought that the Anatomy of a Service should be considered a means to an end. Ultimately, our goal is to Manage IT Services for the benefit of the business. The ITIL framework provides guidance as to how to manage IT. However, if our focus is solely inward and focused only on managing technology, IT could fall short in terms of supporting the organization. Instead, understanding services and their relationship to the business can be instrumental to the long term success of the enterprise. When we are skilled at understanding this key relationship, then and only then can we appropriately apply the concepts and constructs of the ITIL framework and accomplish true IT Service Management.