



SERVICE BASED COSTING AND DEMAND MANAGEMENT

White Paper

IT organizations face increasing pressure to understand cost and demand for IT services they provide, and to manage this cost and demand to optimize the value that IT delivers to the business. The IT Service Catalog is a key enabler for costing and demand planning of IT services.

INTRODUCTION

Every IT executive needs to be able to answer the key questions that are critical for operating an IT organization:

- Who is using what IT services and how much?
- How does the performance of my IT organization compare to that of market benchmarks, industry peers, and outsourcing vendors?
- How does IT consumption vary by business unit or geographical location?
- How does the actual IT consumption compare against budget estimates?
- What are the most optimal demand drivers that I can use to influence my customers' behavior and to reduce the overall IT spend?

The answers to these questions need to be communicated proactively by the IT organization to its business customers to build the trust and confidence between the business and IT, and to enable the customers to plan and manage their IT expenses.

The only way for an IT organization to achieve these goals is by defining and costing the services it supports in a way that the business customers can understand. Unfortunately, IT organizations often fail to cost from a service perspective. Instead they cost from a bottom-up infrastructure technology perspective, in terms of infrastructure components. For example they will cost a set of servers or components with little regard for how the customers of the services that these servers support actually consume them. To add to the confusion, the customer bills that IT generates for business executives usually have no correlation with the service level agreement (SLAs) that IT promised to the business.

It is no wonder, then, that business customers are now demanding better visibility into IT costs from a perspective they understand. This, in turn, is prompting IT organizations to define the services they provide to the business. So the question many of them are wrestling with now is: What is the best way to define these services, map them to the business functions they support, communicate them to IT's business customers, and make them available for planning, budgeting, and financial management?

The IT Service Catalog is rapidly becoming the key enabler for costing and demand planning of IT services.

HOW TO EFFECTIVELY DEFINE IT SERVICES

IT Service Catalog provides the answer. As defined in the popular IT Service Management (ITSM) frameworks (such as ITIL), the Service Catalog is the vehicle for IT organizations to effectively and accurately define and communicate the IT services in relationship to their business use, in a way that is easily understood and managed. The Service Catalog is then used to communicate and negotiate service commitments with customers, and it is also rapidly becoming the key enabler for costing and demand planning of IT services. As illustrated in Figure 1, Service Catalog is the main vehicle for IT-to-Business alignment.

Hierarchical Service Model

The first step in getting your arms around defining the Service Catalog is to recognize that it should be defined as a hierarchical service model that relates IT business services to the underlying products and systems, and then in turn to the technology components used to deliver them. These three layers of the service hierarchy are defined as follows:

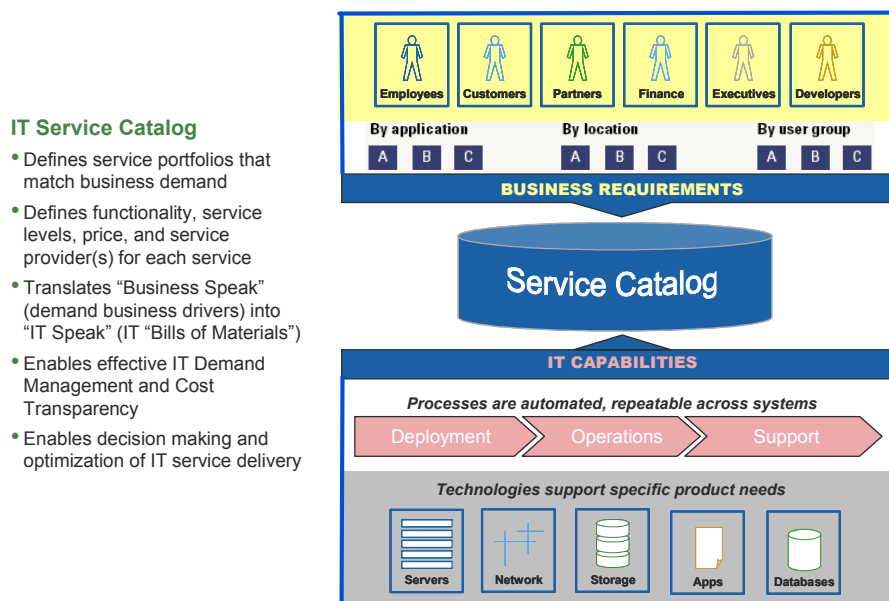
An **IT Service** (sometimes referred to as a Service Offering) represents an IT capability that is offered to the business customer as a well-defined, “productized” consumable offering. Such an offering might support the customer’s internal-facing business function (e.g., End User Computing service) or an external-facing business process (e.g., Order-To-Cash service) or a line-of-business development activity (e.g., Solution Engineering service).

An **IT Product** (often called an IT System or Technology Solution) is an integrated set of related hardware, software, people, and processes supporting the delivery of the IT Service. An example might include a Lotus Notes system (a component of the End User Computing service), a CRM application (one of the systems that might support the Order-To-Cash service), etc. An IT Product may itself consist of several Subsystems.

IT Technology Components (often referred to as IT Assets or Resources) include physical infrastructure elements (servers, network devices, databases, etc.) that are part of an IT Product. ITIL, a popular IT service management framework, calls them Configuration Items (CIs), which, along with the relationships among them, are stored in the Configuration Management Database (CMDB). CI and CMDB are two of the many important IT management concepts defined by ITIL.

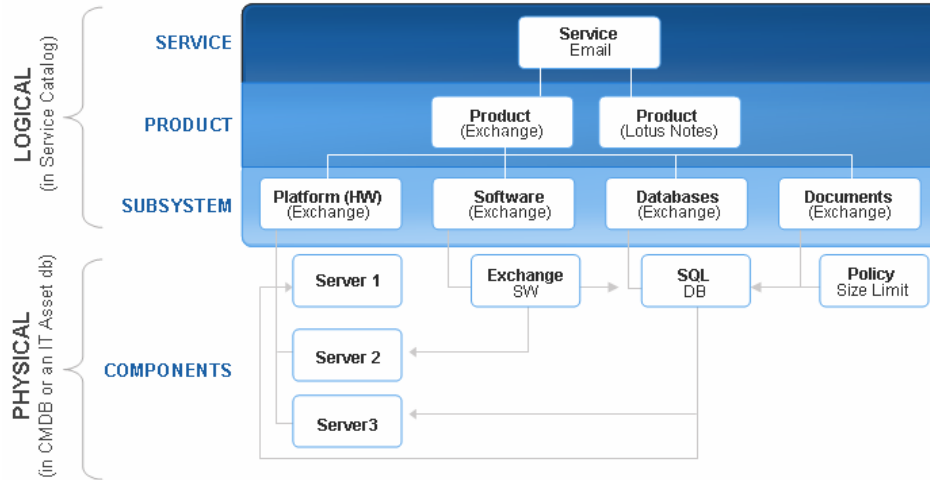
There is often a temptation in technology-centric IT organizations to define a Service Catalog in terms of the underlying IT systems. This is a leading cause of the misalignment between the business and IT.

Figure 1: Service Catalog is the Principal Interface Between IT and the Business.



A mature IT Service Catalog defines not just the high-level IT Services and their attributes, but also how these services map to the IT Products and Systems that support them and, in turn, to the CIs stored in the CMDB (or an IT asset database). An abbreviated example of such a hierarchical relationship for one ubiquitous service, Email, is shown in Figure 2.

Figure 2: Hierarchical Model of an IT Service



In the context of a typical IT organization, each of these three layers has its own distinct set of organizational owners, key attributes, and use cases; and it is defined and maintained in a dedicated system of record within the overall IT ecosystem. An abbreviated table summarizing this information appears in Figure 3.

Figure 3: Layers of a Typical IT Service Model.

Service Model Layer	System of Record	Typical Owner	Key Attributes	Sample Use Cases
IT Service Offerings	Service Catalog	Service Relationship Managers (aligned by BU/customer)	Pricing Model Service Level Agreement (SLA)	Demand Planning Budgeting Service Costing Service Request
IT Products	Service Catalog (with mappings to the CMDB CIs)	IT Product Managers (aligned by IT product line)	Cost Models Service Level Objective (SLO)	Capacity Planning Service/Change Request Fulfillment Orchestration
IT Assets	CMDB	Operations Managers (aligned by technology silo)	Operational Level Objective (OLO)	Server Mgmt Network Mgmt Storage Mgmt Workforce Mgmt ITIL Service Delivery processes

As the system of record for IT Services and IT Products, the Service Catalog is the principal interface between the IT organization and its business customers, where service attributes related to service performance and pricing are defined and managed as part of the overall service model.

Let us now turn our attention to what services would typically be included in the Service Catalog, and how to categorize them to enable the implementation of a mature service-based costing model.

Service Types: Technical and Professional Services

IT services in the catalog usually span two basic categories: Technical Services and Professional Services. Technical Services represent technology based capabilities that support the customer's business process or function. Examples of such services include:

- Network and Internet Access
- E-Mail/Messaging
- Data Storage and Backup
- File/Print
- Voice Communications
- Desktops and End User Computing
- Mainframe and Distributed Computing
- Web and Application Hosting

Professional Services cover the activities that the IT organization provides in support of delivering the Technical Services. Some examples of Professional Services include:

- End User Support
- Application Development and Support
- Architecture and Solution Engineering
- Security
- Project Management
- Purchasing and Procurement

Service Categories: Core, Subscription, and Value-Added Services

Once you have accurately defined service types, you should further segment services into three main categories: **Core, Subscription, and Value Added Services**. This segmentation is particularly critical for implementing a service-based costing model that reflects the fact that some services will be "allocation-based" (service costs allocated to business customers based on a rough cost driver, such as headcount or number of desktops), others will be "consumption based" (business customers pay for the technology products they actually consume), others will be "capacity based" (charging for the ability to reserve increased transaction volumes or alternate network routing for peak usage periods), and others still will be "behavior based" (where the pricing and service options are targeted to motivate certain consumption behaviors).

Core Services are the essential services that are necessary to effectively conduct business activities and are sometimes considered "the cost of doing business." These are services that cannot be eliminated without adversely affecting the functioning of the organization. Typically, all business units of a company would use these services, and their costs would be shared proportionately. Here some standard types of core services:

- E-Mail/Messaging
- IT Support
- Security
- Data Storage & Backup
- Network Access
- Voice Communications

IT Organizations often fail to define Professional Services sections of their Service Catalogs. This results in many such services being lumped together as overhead expenses, and distorts the true picture of service cost.

Subscription Services are usually application-based services that the customer selects individually based on the business function they support. Such services are billed only to those customers who have subscribed to them. Typical opt-in services might include:

- HR Management
- Supply Chain Management
- ERP Applications
- Reporting Platforms
- Trading Applications

Value Added Services are services that go above and beyond a typical service package and are often individually used on an “as needed” basis as requested by the customer. Value Added Services often include:

- Solution Engineering
- Architectural Consulting
- Project Management
- Database Development

The Service Catalog should contain a detailed description of these services, along with the individual functions and features available, expected delivery service levels, and pricing information.

SERVICE-BASED APPROACH TO I.T. COSTING

There are two main methods of costing IT services: cost-centered accounting and activity- or service-based costing.

Currently, cost-centered accounting is still the most commonly used methodology, as it is a relatively simple way to allocate all IT costs across all customers using a gross allocation driver, such as the headcount or desktop count. There are a number of problems with this costing method: it does not support cost transparency, often leads to inequitable IT allocation for customers with different IT usage profiles, complicates budgeting discussions, and generally results in a misalignment between IT and the business.

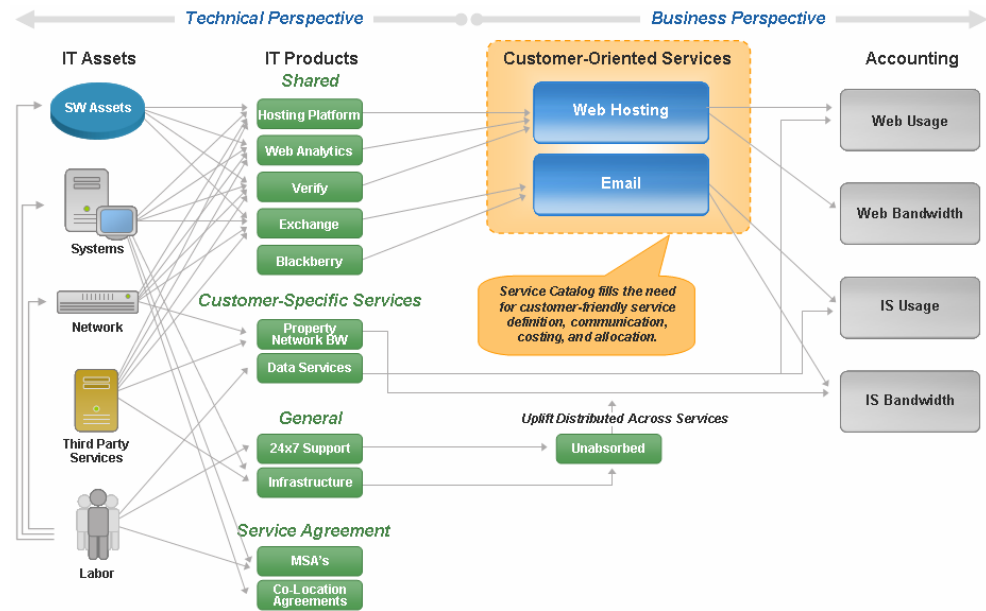
Therefore, as service-centric approach to IT management is becoming increasingly prevalent, service-based costing is rapidly becoming the standard accounting methodology in IT organizations that are adopting ITIL and similar ITSM frameworks. Service-based costing allows IT organization to develop a higher degree of costing accuracy by allocating all related costs and expenses to the appropriate activity or IT service. Once the cost model is created for a service, a unit cost can be defined. This unit cost is then used to more accurately allocate the cost of the service directly to the customer based on the customer’s consumption of that service.

To implement service-based costing, the IT cost center related line items (which commonly reside in an enterprise financial system of record such as SAP, PeopleSoft, or Oracle Financials) need to be mapped to customer-facing IT services. A mature implementation of the Service Catalog should provide a way to define and maintain this mapping, as illustrated in Figure 4.

Once this mapping is established, customers can use the Service Catalog not just to examine the services being offered by the IT organization, but also to plan their service demand, generate forecasts, receive service-based chargeback reports, and reconcile forecasts with actual service consumption.

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Figure 4: Service Catalog as the Basis for Cost Mapping.



Service-Based Costing Model

Figure 5 illustrates how direct, indirect, and overhead cost components all come together to provide a complete picture of service-based costing:

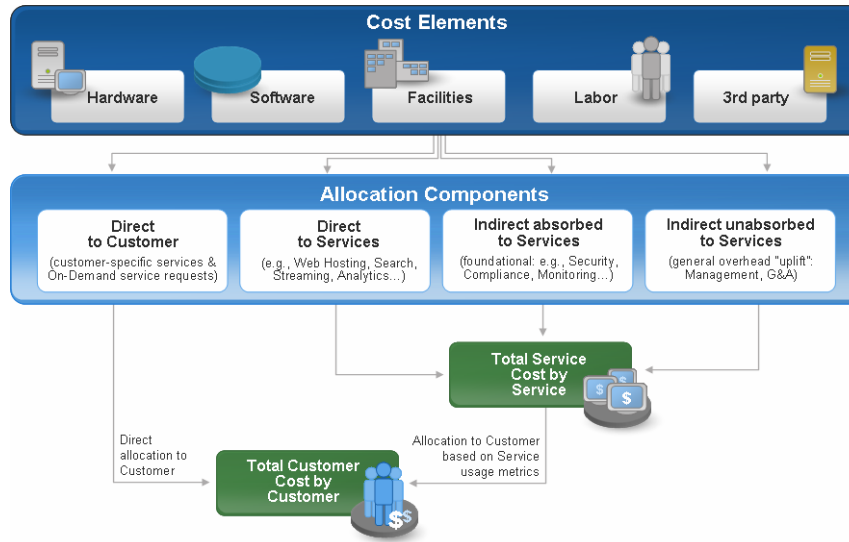
- **Direct to Customer** costs are clearly attributable to a single customer. Examples might include customer-specific services and on-demand service requests.
- **Direct to Service** costs are associated with a single service – for instance, all hardware, software, and labor costs related to establishing and maintaining a Web hosting service. These costs can be derived very easily by querying the financial attributes recorded against those IT assets (or CIs in the CMDB) that have no other service relationship.
- **Indirect Absorbed (or “Shared”)** costs are incurred on behalf of all, or a number of, customers, services, or locations. These costs, which might include cost related to providing IT security, compliance and monitoring, are shared across customers and services according to some allocation driver, such as headcount or percentage.
- **Indirect Unabsorbed (or “Overhead”)** costs are costs that cannot be directly attributed to a customer, service, or location. Examples of overhead costs include executive salaries and general administrative activities.

A **service unit cost** provides a way to break down the total cost of a service into small units that can then be allocated to customers. An example of a unit cost is the cost per mailbox for an email service charged to a business unit.

The result of applying this service-based costing methodology is a detailed and accurate financial picture of Cost-by-Service, which can then be allocated to customers based on their actual service consumption.

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Figure 5: Service-Based Costing



Implementing Service-Based Costing

To develop service-based costing, an IT organization should follow these high-level steps:

1. Define and Model Services:

- Define IT Services and IT Products.
- Classify the services (core, subscription, and value-added).
- Model the services and products in the Service Catalog.
- Map the services and products to the underlying technology components (IT assets or CMDB CIs).

2. Create Service Financial Model:

- Decide which services will appear directly on the customer's bill.
- Allocate the services that are not on the customer bill against other services.
- Define drivers and allocation methodology for the component services.
- Define a unit cost for the customer-facing services on the basis of service consumption.
- Map cost-center items to services and establish the data link with the ERP financial system of record (if available).

3. Start Managing Service Demand:

- Capture customer demand in terms of service consumption drivers.
- Budget and plan capacity in terms of projected service demand.
- Align IT with the business by establishing cost transparency and reporting (service-centric billing, budgeted vs actual service consumption reports, unit cost trends, etc.)

Mature IT Service Catalog implementations, supported by the products that are now available from the ITSM tool vendors, are capable of supporting all of the steps needed to implement and maintain service-based costing.

IT Service Catalog tools are designed to support the implementation of service-based costing.

5 KEY BENEFITS of service-based costing

- 1 The cost of IT services are aligned with the capabilities provided.
- 2 IT organizations can more accurately track IT costs
- 3 It can help validate its existence by including professional services in the direct and indirect costs for IT services
- 4 IT organizations can provide cost visibility to executive management, justify IT expenses, and use costing as management and planning tool
- 5 IT organizations can make trade-offs and decisions with their business customers-managing expectations and continuing to support the business in a cost-effective way.

SERVICE-BASED COSTING AS A MANAGEMENT TOOL

For years, executive management has tolerated the costing of IT as a single cost center, which at the end of a fiscal year is allocated proportionately across the various client business units. Now, outsourcing and other options for service provision introduce cost pressure and competition to the IT organization. The pressure is pushing the inevitable requirement of more visibility into the true cost of service provision. As the IT industry has matured, providing a blanket cost for general IT is no longer good enough. If an IT organization doesn't provide visibility into costs, someone else will, and the IT organization could be outsourced.

Consider this scenario: The CEO walks into the CIO's office and says, "How much does it cost for you to support email?" If the CIO doesn't know, the CEO might say, "Well, the board has decided that you are going to have an opportunity to bid on that against other service providers. You have until next Friday to figure it out."

Many organizations resist the effort required for clear costing with the excuse that they do not charge back for IT services. However, consider the point that regardless of whether a formal invoice is submitted, the business ultimately has to pay. Whether that's through a formal invoice or the transfer of funds to a cost center, it's still a movement of money to an IT organization based on some kind of an allocation. In a sense, *not* charging isn't really an option. The real question on the table is what level of *visibility* will be provided. No longer will an overall "cost center" approach suffice.

What is needed now is a "cost management" approach. The Service Catalog enables you to implement a costing framework so that IT organizations can make trade-offs and decisions with their business customers – setting expectations, managing demand, and continuing to support the business in a cost-effective way.

As the IT industry has matured, providing a blanket cost for general IT is no longer good enough. If you don't provide visibility into costs, someone else will and you could be outsourced.

About Lontra, Inc.

Founded in 2001, Lontra is the leading provider of IT Service Catalogs solutions for the Global 2000 corporations and government entities.

Lontra's IT Financial Management and Demand Planning solutions are built around an actionable IT Service Catalog that helps IT transform into a service-oriented organization and maximize the value it delivers to the business.

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