



# Real IT Transformation Requires a Real IT Service Costing Process

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## Executive Summary

Literally thousands of magazine articles, white papers, and blog posts discuss the urgent need for tighter alignment between the IT organization and the business. However, relatively little has been written about one of the most critical prerequisites for true IT/business alignment: A service costing process that can provide fast, accurate, transparent cost information about IT services to business leaders and consumers such as departments and lines of business (LOBs).

Cost transparency is important not only because IT service users want to know exactly what they're paying for; it also provides an opportunity for IT to quantify its value to the business. With an in-depth understanding of the costs associated with delivering IT services, business and IT leaders can make better decisions about where to focus IT investments, which services to keep in-house and which to outsource, and where there may be opportunities for cutting costs, refining the business strategy, and creating new competitive advantages.

The principle of "minimize IT costs while maximizing business value" is core to IT business management (ITBM). But without a granular, service-based costing process, how can IT leaders truly deliver IT as a service and run IT like a business?

This paper offers guidance on implementing a service-based costing process, including key considerations and specific recommendations. The paper uses a real-world customer example throughout (a leading global professional services provider referred to henceforth as "The Company") to illustrate a three-dimensional approach that fully addresses the technology, people, and process challenges of becoming a world-class IT service provider.

## Company Background and Previous IT Costing Model

The Company specializes in management/IT consulting, tax and financial advice, and enterprise risk management. It is focused on small to midrange businesses and has more than 40 partners and 5,000 professionals in total, and also operates a number of business units.

Under its previous IT business model, The Company charged for IT services by simply allocating the total IT costs and expenses among service consumers based on the number of desktops and laptops they used. This “lump sum” cost allocation showed only the cost of IT overhead based on the number of heads. This of course led to the perception that “IT is always expensive.”

The Company knew it needed to move to a more service-oriented, customer-centric model. It began this effort by implementing IT Infrastructure Library (ITIL) recommended best practices to try to improve the efficiency of technical processes. However, this initiative was limited to a few processes and achieved limited results. The Company recognized that incremental improvement—tapping around the edges—was insufficient. To achieve a true IT transformation, The Company needed to address not only the deployment of new technology but also the way new technology was operated and managed.

The Company’s CIO set an initial goal that by the end of 2016, IT would be capable of delivering a service-based invoice to business units capturing costs, unit rates, and consumption for all services delivered. This required a sound service-based, value-centric costing model.

## Working Toward a Solution: High-level Strategy

The Company decided to take its first steps toward a service-centric costing process using its recently deployed software-defined data center (SDDC) environment to provision “lab as a service” for business and IT consultants and employees, and then expand the initiative to virtual machine as a service for the production environment during a second phase. Once those two pilot projects had been successfully implemented, The Company intended to move the majority of IT services into the SDDC so that the private cloud environment could become the predominant model.

The Company’s ultimate objective was to be able to provide accurate showback/chargeback of lab as a service (LaaS) to all business units whose consultants actually use the service. This required an in-depth understanding of the end-to-end costs to avoid excessive or inadequate cost allocations to the LOBs.

To meet the objective, VMware Professional Services proposed establishing a service-based costing process, which entailed the development of a service-based cost model, the creation of service-based cost allocation strategy, and guidance on how to classify IT costs from a “service” perspective. Once those foundational steps were completed, the LaaS offering could be mapped out and all service components and cost elements identified. The LaaS offering would then be developed along with any applicable service-level targets or expectations. Finally, all service-based cost allocation, classification and cost calculations would be performed and applied based on the agreed-upon strategy.

By creating and implementing a service-based costing process, VMware consultants advised, The Company would be able to gain the following benefits as it approached its stated vision:

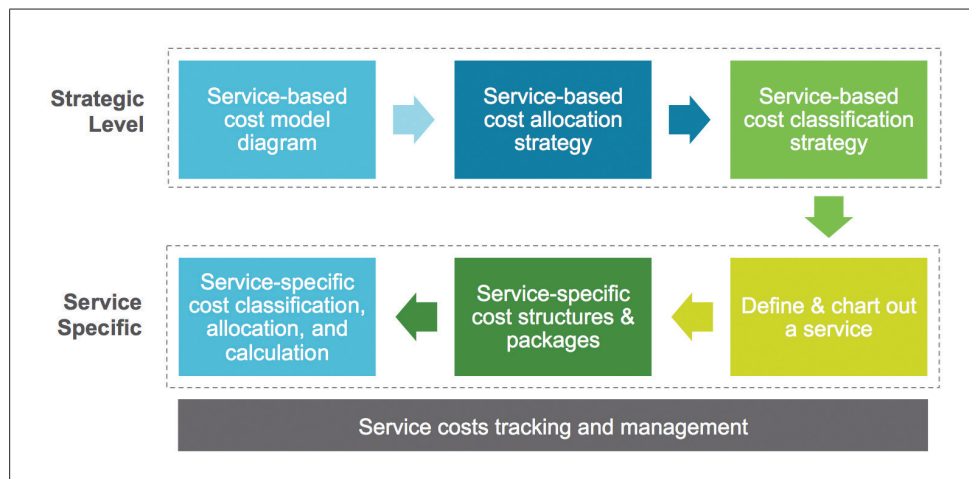
- **Reduce costs of managing IT service costs** through a standard and consistent service costing process, and by establishing clearly defined roles and responsibilities.
- **Accelerate business transformation** by repositioning consulting services within the context of IT deliverables, both from service and business management perspectives.
- **Improve cost transparency** with internal IT teams, LOB stakeholders, executives, and end customers.
- **Increase IT business management maturity** by equipping IT and finance teams with the skills needed to manage IT as business and optimize IT financial management processes.
- **Improve IT investment planning/budgeting** through a more effective, holistic service-oriented approach that takes into account both demand and supply functions.

## Comprehensive Approach: Processes, People, Technology

Successful IT transformations require more than deploying the right technologies. If operational considerations are not addressed, IT environments remain vulnerable to inefficiencies and/or failures. Therefore, the solution the VMware team proposed to The Company consisted of three core components: processes, people, and technology. The next sections of this paper address these three pillars in more detail and illustrate how The Company's IT organization has been able to progress on its journey to a service-based costing process.

### Processes: IT and Business

The core requirement for The Company was to transition from its “lump sum” accounting method to a new process that views IT expenses from a services angle. The new service costing process implemented at The Company is shown in Figure 1.



**Figure 1.** The service costing process implemented by The Company

The implementation of the service costing process began with strategic considerations focused around three core areas:

#### 1. Create a service-based cost model diagram.

A cost diagram is needed to depict the flow of IT costs from the general ledger or cost sources all the way to the services being provisioned—in such a way that IT can present consumers with a statement showing all service costs.

Creating a cost model diagram is a crucial step to ensuring accuracy and completeness of any cost model, yet it has been one of the show-stoppers for many organizations attempting to implement service-based cost models. The reason, in a word, is complexity. It can be a daunting task to aggregate dispersed information and display it in a single view. In the experience of VMware Professional Services, the key is to jumpstart this effort with the assistance of an executive sponsor, and increase the maturity of information-gathering techniques over time.

The first step in creating the diagram is collecting all sources of IT cost data including the general ledger, spreadsheets, project management tools, HR tools, and ERP systems.

The next step is to identify all IT cost centers, along with their expense codes and chart of accounts, along with all of the technology components and services that contribute to total costs. This was the most challenging exercise for The Company for two key reasons: It lacked an IT service catalog, and it had no service definitions detailing what is a service and what is not, and which components make up each service along with the key dependencies.

To achieve a full service-based cost model, The Company needed to develop a service catalog and define each service so that it could calculate costs for each service. The Company took this approach with the LaaS offering as a starting point. It completed a full definition exercise to understand the components and map out the various services and draw the connections between them to reflect the dependencies. Figure 2 shows The Company's startup service-based cost model diagram.

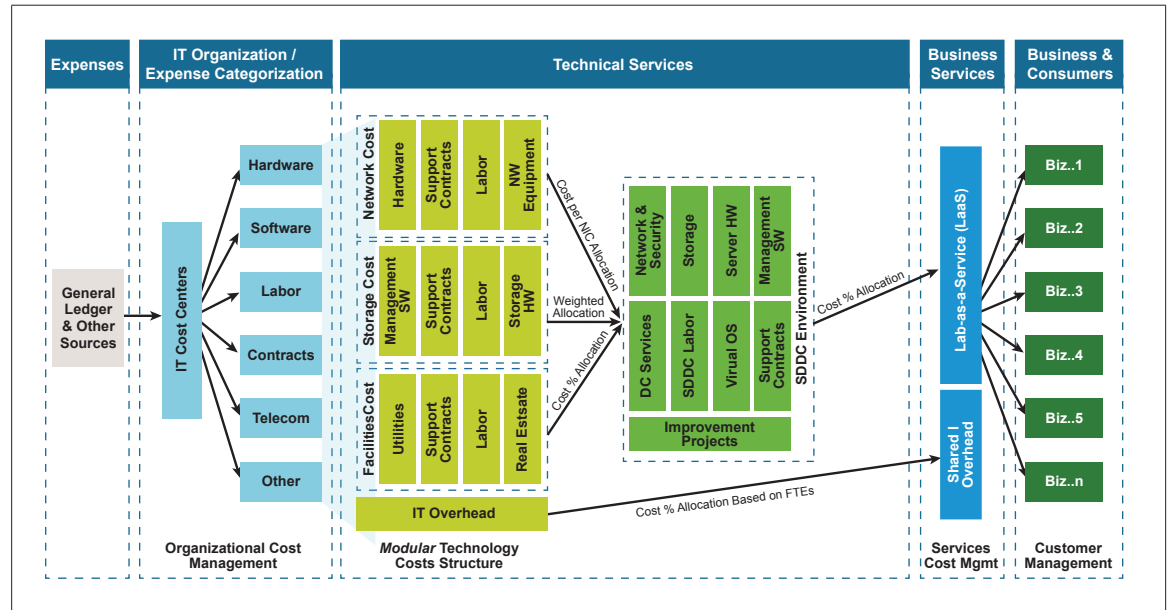


Figure 2. The Company's startup service cost diagram

## 2. Develop a service-based cost allocation strategy

Many IT organizations have some cost allocation practice in place, but typically it is meant for IT-to-business cost allocation and does not deal with service-to-service cost allocation. The old The Company's lump-sum allocation did not demonstrate any IT value but only the cost of IT when running the business.

The service-to-service cost allocation method details how to allocate the cost of services with precision—for example, how to allocate the cost of networking services to servers or virtual machines, how much of that to allocate among client desktops (desktop as a service), where to allocate storage costs, and so on. Allocations are all based on the provider-consumer relationship between services. For the Company, the service-to-service costing method accounted for multiple elements, including:

- Servers and their related hardware
- Network and security allocation to servers
- Data center, storage and data center facilities costs
- Software and enterprise license agreements
- Support and operations contracts
- IT project costs
- Labor costs
- IT overhead

The objective for The Company was to fully load IT costs into services being delivered and transfer these costs to the business. The VMware team discussed this strategy with key roles such as the CIO, IT Financial Manager, CFO, VP of Infrastructure/Cloud, and Service Owners/Managers, and these key stakeholders agreed that the allocation guide should be used by all Service Managers to help them understand their service cost allocation end-to-end.

### 3. Develop a service-based cost classification strategy.

Cost classification is another example of a critical process that is often neglected or performed ineffectively because of the complexity of the task, leading to multiple consequences. Misclassifying IT service costs can cause many management accounting issues including wrong decisions, inaccurate costing and pricing, and understated or overstated costs—all of which lead to inaccurate, incomplete, or inequitable cost allocations.

In general, IT service costs can be classified into the following categories:

- **In/Out Service Costs.** It is very important to understand what goes into the service cost and what can be considered as part of the accounting period costs. All direct service-related costs should be part of a service cost, while non-related service costs should be part of accounting period costs. For example, The Company's VMware software licenses costs are service directly related costs for LaaS since it fully depends on many VMware software products. While the cost of office rent is indirectly related to a service cost, it should be classified as pure IT overhead that is part of the accounting period.
- **Fixed vs. Variable costs.** This classification is typically used to understand cost behaviors and enable appropriate cost optimization decisions. Variable costs vary based on usage or time and are proportional to changes in the level of activity. Examples include datacenter utility bills, support tickets, or service consumption. Fixed costs are fixed in total regardless of service or resource usage. Examples include software license costs, hardware purchases and support contracts.
- **Direct vs. Indirect.** A direct cost is directly related to a service and can be easily traced. The VMware vSphere software license cost is a good example for LaaS. Indirect costs are indirectly related to a service and are typically spread over a number of services. For example, the cost of the network is an indirect cost to the LaaS, as the network component is shared with other services.
- **CapEx vs. OpEx.** Capital expenditures (CapEx) are major expenses incurred whose costs have to be depreciated (split over) over the useful life of an IT asset, while operational expenditures (OpEx) are incurred periodically. For example, the cost of the software licenses The Company paid to VMware as part of the LaaS offering was intended for a useful life of five years; therefore that amount should be divided by five years and then allocated to all IT services using those VMware products. The cost is classified as CapEx. Examples of OpEx would be labor wages, support contracts, and subscriptions.

In the case of The Company, the service-based cost classification strategy has been developed and a generic IT service cost classification guide has been produced to guide Service Managers on how to classify their service costs. All LaaS-related costs have been classified according to the eight classifications above as a starting point.

After these strategic IT/business processes are carried out, service-specific tasks can begin. For example, for each service there are steps that need to be performed to calculate its specific costs based upon the overall service-based cost model diagram, and allocation and classification strategies agreed. These include:

- **Define and chart a service.** Using the same process described earlier, a service chart should be created for each service depicting the hardware and software components, service dependencies, contractors and providers, operational and business processes, and roles and responsibilities.



- **Develop service-specific cost packages and structures.** The service costing process does not just produce a total cost of ownership (TCO) dollar figure; it drills into the details of the service being delivered. For example, if The Company wanted to deliver virtual machine as a service into three tiers titled Silver, Gold, and Platinum, each of these service levels must contain some IT service features or capabilities that distinguish it amongst the others. These additional service features are the additional cost elements that should be calculated separately. For example, the Gold level suggests a higher level of storage performance, which is more expensive than the standard storage used in Silver level. Or a backup service may be included only in the Platinum level, and may include additional software and hardware costs that need to be incorporated. In addition, service cost units must be defined at this stage, along with any metering options. For example the email service cost unit could be an email account, while the virtual machine as a service would be a virtual machine. Metering options could include time-related options (daily, weekly, monthly, and so forth) or capacity-related metrics such as gigabytes of vRAM or storage.
- **Service-specific cost classification and allocation.** This step helps a service manager calculate the overall cost with fine granularity. After a service has been defined or charted and all of its cost elements have been identified, each one is classified based on the agreed classification strategy (service-period, direct-indirect, CapEx-OpEx, fixed-variable) and costs allocated based on the discussed strategy. Then all cost allocation rules are applied along with the appropriate cost structures and the end-to-end service cost is calculated.
- **Service costs tracking and management.** The last step in the service costing process describes how a service manager can track and manage service costs on ongoing basis. It involves the actual costs recording and tracking, comparing them with the planned costs, generating variances reports and, and making decisions. It also involves some predetermined key performance indicators (KPIs) that have process controls to sustain this service costing process and help IT financial management mature the process over time.

### People

IT/business processes can become “shelfware” just like products if they are not developed in conjunction with people and their roles and responsibilities. Similarly, technology cannot provide a solution on its own; it must be developed and deployed in conjunction with stakeholders. However, tight integration between processes, technologies, and people can exponentially improve the effectiveness of all three.

Along the same lines, handling IT financial management (ITFM) activities is not a one-man show. Depending on the organization's size and complexity, there could be multiple roles involved in the management and execution of the process activities described above. At The Company, the following roles have been involved:

- **Financial Controller.** This role supports the ITFM manager and the established practice throughout the service life cycle all the way from the IT service portfolio to showback and chargeback, including the correct service accounting methodology based on The Company's financial management practice.
- **IT Financial Manager.** The IT Financial Manager develops and owns the ITFM practice within IT including service costing, investing and budgeting, and showback and chargeback, in light of The Company's financial management practice. Moreover, the IT Financial Manager supports the setup and production of monthly customer reports and IT statements along with the use of ITFM-automated tools to produce scorecards and cost transparency information. This role is also responsible for ensuring that the IT organization is supporting the financial aspects of the company's scorecard, including the continuous CapEx vs. OpEx analysis and the overall planning and governance of the IT budget based on the demand and consumption.
- **Service Owner/Manager.** The Service Manager is responsible for understanding the true service costs and accounting analysis for the services this role manages. The Service Manager understands the components that make up a service and therefore would be the best role to own end-to-end service costing for the managed service. Also, the Service Owner/Manager is responsible for following the service costing and general ITFM practices and guidance developed by the ITFM team with regards to service cost management.

- **VP of Infrastructure/Cloud.** The Company's Cloud VP is in charge of justifying cloud investments by a deep understanding of demand vs. capacity and production cost of cloud services (including lab as a service). The role is also responsible for making decisions related to cost optimization by building what-if scenarios, benchmarking, and proactively looking for areas to optimize cost. Moreover, the VP of Cloud is responsible for showing consumers the value of cloud delivery through the proper connection to the chargeback practice.
- **IT Manager.** The IT Manager supports the service cost model development, helps in investment planning and budgeting, and contributes to IT service portfolio development.

The CIO role is also involved at The Company to ensure the right alignment of business goals to IT services being delivered via the cost-transparent delivery of the cloud services to provide higher value in the context of demand, supply, cost and quality. The Customer Relationship Manager is also involved as a customer-interfacing role to help in unitizing the offered service (e.g., creating the appropriate service packages and levels/tiers).

Developing a roles/responsibilities chart (known as a RACI) provides a concise and easy way to track who does what along with the level of contribution and accountability. For example, looking back at the three process steps described previously in this paper, the IT Financial Manager has primary responsibility, working in conjunction with other roles as follows:

- **Establishing a service-based cost model diagram:** The IT Financial Manager works with the Financial Controller/Manager and consults with other roles such as Service Owner or Portfolio Manager during this process.
- **Developing a service-based cost allocation strategy:** The IT Financial Manager is supported by the Financial Controller, the Service Portfolio/Catalog Manager, and the VP of Cloud.
- **Develop a service-based cost classification guide:** The IT Financial Manager is responsible for the development of a descriptive IT service-based cost classification guide based upon The Company's accounting methodologies, which is the guiding document for the Service Manager/Owner to follow in any service costing exercise.

The focus then shifts to Service Managers, as they are responsible for costing out their services end-to-end. For example, defining and charting a service is wholly the responsibility of a Service Manager, supported by other Service Managers, the VP of Infrastructure/Cloud, and Service Portfolio/Catalog Managers, with some involvement by the CIO.

While Service Managers remain fully accountable and responsible for many of the service-specific cost activities, other roles may share the same level of contribution too. For example, the Customer Relationship Manager is involved in developing the service-specific cost structures including service cost units, metering options, service levels, and tiers. The IT Financial Manager should guide and support every Service Manager undergoing this exercise. And the IT Financial Manager is primarily accountable for service cost tracking and management, supported by the Service Manager, VP of Infrastructure/Cloud, and finance department.

## Technologies

In this case, The Company made a strategic investment with VMware and deployed the VMware® IT Business Management Suite™. This is the technology that will help them gain cost transparency, align with the business, enable the CIO's transformation agenda, and control and optimize the IT budget and costs. The Company has deployed the VMware IT Business Management Suite to focus on three primary objectives:

- **Automated IT costing.** The Company has configured the IT Business Management Suite to read IT cost information from multiple sources including their general ledger, HR tools, and other internally used spreadsheets. The Company configured a synchronization schedule to automatically pull the updated financial records into the IT Business Management Suite. It has also been configured to auto-classify most of the expenses into the right cost categories and services with the agreed and preconfigured cost allocation parameters. The vast majority of the strategic process described in the IT/Business process section can also be automated with the IT Business Management Suite to make it more efficient and valuable to IT. Simply put, the software helps automate the cost calculation, classification, and allocation, and generates reports about planned and actual costs to all stakeholders.
- **Cost transparency.** The IT Business Management Suite also provides internal cost transparency between IT groups such as networking and storage and other consumers such as the software-defined data center (SDDC) services (e.g. LaaS, VM as a service), email service, and others. This level of cost transparency was required to create a business-centric service view. The next level of transparency is between IT Service Managers and their business consumers and units. Making the cost and quality of services transparent is a key responsibility of IT in this new service provider role, as it helps ensure that the organization can make optimal decisions around which services can be delivered internally versus services that should be consumed from the cloud or even outsourced.
- **Service-based cost modeling.** Another capability of the IT Business Management Suite that The Company found useful was the ability to visually represent a service-based cost model and make the appropriate cost allocations between services, cost objects, and business consumers. The Company decided to start with LaaS and then expand to more services over time. Today the IT Business Management Suite enables The Company to move from a technology orientation—in which IT manages servers, storage, networking and applications—to a business orientation in which it manages a portfolio of services. The IT Business Management Suite uses a deterministic engine and powerful modeler to allocate or translate IT costs (physical, virtual, labor, vendor, overhead, facilities, software, support, cloud, and so forth) to each IT business service. Supporting simple allocations to usage-based and complex activity-based costing, this approach provides superior control, agility and transparency compared with “inference” approaches whose algorithms offered The Company little control.

In addition, The Company has implemented basic CIO and Service Manager dashboards to provide insight into the financial performance of all managed services. At this stage LaaS is the starting point. The dashboards show cost vs. budget trends, at-a-glance insights of significant trends in cost, budget, and unit costs, monthly cost distribution of IT services, cost vs. budget services-view, monthly actual costs, IT cost centers expenses, and other trends including CapEx/OpEx, and fixed vs. variable costs.

The dashboards define the visual layout of the user experience. Each dashboard is composed of frames that display customized information designed for the intended user. The dashboards enable The Company's CIO, IT Financial Manager, VP of Cloud, and Service Managers to gain access to cost information and make data-driven decisions.

## Project Summary and Recommended Next Steps

The service costing project introduced a new ITBM discipline within The Company's IT organization that has proved essential for cloud-based business management. The project has delivered a solution that established the right ITFM processes (based on VMware recommended practices) to help The Company transition to more business-oriented, service-centric costing.

The Company now has a service-based cost model diagram that traces IT costs from general ledger all the way to all business units consuming IT services. The Company has also developed a service-to-service cost allocation and classification strategy that empowers Service Managers to cost out their managed services.

The new costing model also lays out the key roles, along with their primary responsibilities. Finally, the new model enables more effective and efficient execution through use of the VMware IT Business Management Suite to address cost automation, transparency, and service-based cost modeling.

The scope of the first phase was focused on one service (LaaS), and The Company intends to continue to expand with other IT services and technology features to increase the maturity of the IT business management practice. VMware consultants have recommended the following in support of The Company's service costing process project:

1. The initial phase is a jump start effort; accuracy can be improved as the ITFM program progresses across the future phases.
2. It is important to share and socialize with key stakeholders (such as Network and Storage service owners), who are dependent on LaaS.
3. Cost allocations should be reviewed and updated on a regular basis.
4. Accuracy is not the most important element initially; actual consumption figures for every service might be challenging. Keep it simple and mature as you go. Showback can then be introduced to the business along with its benefits.
5. Continual service catalog improvement through service identification and definition will drive more accurate service cost allocation.
6. It is vital to get started with a service catalog and identify and define each service to help feed cost data into the ITBM tool.
7. LaaS consumption and demand should be promoted to increase efficiency and reduce the average cost per virtual machine.

In terms of the implementation roadmap for The Company, the IT business management improvement program includes at least two phases. The first phase has been delivered as described throughout this paper, following an agile approach. This first phase was all about introducing the solution that combined IT/Business processes and enabling them through people and technologies. It was about laying the foundational blocks for service-based costing, empowering people and automating the basic processes in the IT Business Management Suite tool.

The second phase of the program will be more concerned with the completeness of The Company's service catalog. It will also involve taking full advantage of more IT Business Management suite features such as planning and budgeting, what-if scenarios, and benchmarking. The total duration of the program is expected to be two years depending on the complexity of services, organization change adaptation, and business priorities.

## Conclusion

As more businesses recognize the integral role IT plays in the overall success of the enterprise, business stakeholders have higher expectations of IT's performance and its ability to show its value. Today's CIO must have the business acumen to transform IT from a technology provider to a valued business partner and IT-as-a-service provider. The ability to quickly re-engineer the cost model to align to one that is service-oriented and customer-centric is one of the first steps in the IT transformation journey. Simply put, there is no real IT transformation without a real service-based costing process.

## Learn More

For additional details about the service costing process described in this paper or the VMware IT Business Management Suite, please visit the VMware website at [www.vmware.com](http://www.vmware.com)

