



PTS Perspective

What does IT Service Management have to do with the Cloud?

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Kuldip Sandhu, Principal Consultant and Head of Business Transformation and Change at PTS, outlines how IT Service Management can bring customer focus to the provision of cloud services.

Setting the Scene

To maximise the return on investments in cloud services, all IT functions must optimise their operating models, processes, performance indicators and workplace culture.

The cloud delivery model represents a paradigm shift from delivering technology products to delivering business services. The cloud model enables the redirection of effort and reallocation of money that is traditionally spent managing complex technology architecture to managing services that are focused on innovation and meeting customers' business needs. In the cloud, computing resources can include a combination of networks, servers, storage, applications and platforms.



This shift promises consumers of cloud services several benefits, including increased business agility, reduced total cost of ownership and faster time-to-market. Corporate IT, cloud vendors and outsourcers have already begun the transformation of their technology product offerings to a private, public or hybrid cloud service offering.

Effectively delivering and managing a cloud service, however, goes beyond a well-architected technology platform and extends into the operating model, service management processes, performance management and cultural facets of a cloud provider's organisation.

For more than 30 years, any IT Service Management (ITSM) framework, has shared the same *raison d'être* as cloud computing: abstract the technology and focus on business value. Even today, these frameworks provide technology leaders with a methodology for structuring their activities and interactions with the customer within the overall context of the services they deliver.

Based on our experience in the field, we believe that business and IT leaders must complement their cloud strategy with an IT Service Management strategy in order to fully realise the benefits of a cloud delivery model.



A detailed discussion

In managing cloud services, two factors are absolutely critical to the bottom-line: efficient delivery of services and an unwavering focus on the customer.

Cloud computing has been so broadly discussed that the term has drifted into the popular lexicon. Today it is not uncommon to hear someone say that his digital photos are stored “in the cloud” or that her email is “cloud-based.” Yet in the business environment, the term cloud computing has become so vague that it defies definition. A quickly compounding number of cloud service types (Software as a Service, Platform as a Service, Infrastructure as a Service, for instance) and deployment models (private, public and hybrid cloud) has resulted in an eruption of terminology that may mean one thing to a vendor and quite another to a customer. At the same time, vendors are further confusing matters by adding the word “cloud” to marginally related services to take advantage of the buzz.



While the service and deployment models vary, the cloud model itself has a unique set of characteristics that are universal. They include:

- On-demand self-service enabling the consumer of cloud services to request computing capabilities as needed without human interaction.
- Broad network access ensuring that cloud capabilities are available over the network and can be accessed “anytime, anywhere” using a range of devices such as laptops, smart phones and tablets.
- Resource pooling combining the computing resources, typically used in a multi-tenant model, to serve multiple consumers.
- Rapid and flexible service provisioning, in some cases automatically, to meet fluctuating customer demand.
- Measured service capabilities enabling the provider to correctly meter and price the services consumed by the customer, and the consumer to calculate the cost of the service.

A focus on service delivery

To successfully deliver a cloud service, there must be a focus on superior customer service. An unwavering focus on the needs of the customer requires that cloud service provision embraces business-centric service management capabilities. These capabilities are absolutely core if the IT function is to deliver real value to the business through cloud services. Key capabilities include:

- Customer empowerment and experience: Services must be packaged and presented in a customer-centric way that enables customers to quickly configure and consume services that meet their needs.



- Service agility: Services must be flexible and accommodate a range of customer scenarios without the need for extensive customisation.
- Customer assurance: Services must ensure that customer data is secure and in compliance with regulatory mandates, and that the service is reliable, consistent, and of high quality.
- Cost transparency and service pricing: Service providers must be able to determine and control the cost of goods sold and accurately measure units of service consumed. Consumers require a range of competitive services that are appropriate to their business needs and expectations.
- Operational efficiency: Cloud services must operate in a low-touch, operationally efficient environment that combines automation and standardisation of processes
- Service governance: The cloud service delivery model requires strong governance controls to ensure that services are being procured and consumed in accordance with the organisation’s policies.
- Service culture: Most importantly, the culture of the IT function must shift from a technology orientation toward one that is customer- and service-oriented.

Taken together, these capabilities demand a disciplined framework to align the organisational, process, and technology elements of the cloud service operating model. We believe that an effective and efficient delivery model for cloud services can be built, by adopting and adhering to an IT Service Management framework that fuses effective technology management with a focus on enabling the efficient delivery and management of business services.

The table below summarises the synergies between ITSM and the cloud delivery model where ITSM processes that are most relevant to enabling cloud characteristics are identified by a tick.

Processes	Cloud Characteristics				
	On-Demand Self Service	Broad Network Access	Resource Pooling	Rapid Elasticity	Measured Service
<i>Service Strategy Lifecycle</i>					
Strategy Generation	✓	✓			
Financial Management	✓		✓		✓
Service Portfolio Management	✓		✓	✓	✓
Demand Management	✓		✓	✓	
Business Relationship Management	✓	✓			✓
<i>Service Design Lifecycle</i>					
Design Coordination	✓		✓	✓	✓



Processes	Cloud Characteristics				
	On-Demand Self Service	Broad Network Access	Resource Pooling	Rapid Elasticity	Measured Service
Service Catalogue Management	✓				
Service Level Management	✓	✓	✓	✓	✓
Capacity Management	✓		✓	✓	✓
Availability Management	✓	✓	✓	✓	✓
IT Service Continuity Management	✓	✓	✓	✓	✓
Information Security Management		✓	✓		
Supplier Management	✓		✓	✓	✓
Service Transition Lifecycle					
Transition Planning and Support	✓			✓	
Change Management	✓			✓	
Service Asset & Configuration	✓		✓	✓	
Release & Deployment Management	✓			✓	
Service Validation and Testing				✓	
Evaluation				✓	
Knowledge Management	✓				
Service Operations Lifecycle					
Incident Management					✓
Event Management	✓	✓	✓	✓	✓
Request Fulfillment	✓			✓	✓
Problem Management					✓
Access Management	✓	✓	✓		
Continual Service Improvement					
Seven Step Improvement Process	✓				✓

Efficient delivery of cloud services

ITSM frameworks are nothing new, of course. Technology leaders have employed such frameworks for more than three decades to efficiently manage enterprise technology environments. Typically they are designed with the foundational intent of placing the customer's needs first, while shifting the culture of the IT organisation from being technology-component-oriented one to being customer service-oriented.



A key tenet of any ITSM framework is that the IT service delivered must be reliable, consistent, of high quality and of acceptable cost in the eyes of the customer. Consequently, quality management and process control are key aspects of the framework.

Of the processes in the above table that have an impact on cloud delivery, we believe the following areas are of particular importance in a cloud environment:

Service Catalogue Management: A web-based service catalogue provides relevant information on all available services and pricing, and enables the consumer to procure capabilities as needed on a self-service basis. Many cloud providers also make available the notion of a virtual “shopping cart,” similar to those employed by



online stores. This capability allows consumers to browse for the specific services that meet their needs, obtain more information about those services, and then request those services on demand.

Request Fulfilment: After a customer requests cloud services, the request fulfilment process gathers additional requirements or specifications necessary to fulfil the service request. In infrastructure provisioning, for instance, additional requirements could include platform types, compliance requirements and availability needs.

Service Level Management: To realise the economies of a cloud delivery model, a standard set of service tiers or thresholds available to consumers must be defined. Each of these service tiers may have its own set of service level agreements (SLAs) and corresponding pricing. Additionally, in a cloud environment there are higher interdependencies and redundancies among virtual system components. The traditional focus on individual infrastructure components such as servers, network, and storage is of lesser value when trying to provide the best end-user service availability and experience. Service level management should take into consideration that this environment creates a shift from a component-centric view of technology to a user-experience view.

Capacity Management: In the provision of cloud services, computing resources are pooled to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned based on demand. Capacity planning and management is central to being able to meet the agreed-upon service-level targets.

Release and Deployment Management: The objective of this process is to plan, schedule and control the movement of releases to production environments. In planning a cloud environment, the two core areas within this process are the definition of the development of the Gold Image (if relevant to the cloud service being offered) and the automation of the provisioning activities. New automation solutions being offered by vendors are starting to accommodate the greater complexity and dynamic nature of the cloud.

Seven Step Improvement Process: An automated metering capability measures resource usage by type of service (storage, processing or bandwidth, for instance), providing pricing transparency for both the provider



and consumer. Service measurement also enables cloud providers to design product improvements based on detailed usage data that identifies the features and functionalities most commonly used.

Financial Management: The cloud's pay-as-you-go business model has a significant impact on the traditional approach to budgeting, accounting, and charging for technology services. The cloud model will bring changes to every aspect of the technology finance function, and appropriate financial management systems are critical. Providers of cloud services must be able to determine and control the cost of consumed by customers.

Supplier Management: Typically in a cloud delivery model, a web of downstream suppliers needs to be aligned in order to deliver a service to the customer – particularly in the case of a public or hybrid deployment model. This process area focuses on ensuring that all contracts with downstream suppliers underpin and support the needs of the customers, and that all suppliers meet their contractual commitments. Supplier management provides the appropriate governance and control mechanisms, as well as the understanding of the potential impact of underpinning contracts with each supplier.



Information Security Management: Security of data and information are a major consideration for cloud services. Customers must be confident that their statutory and regulatory obligations regarding information security can be met, and all parties in the cloud delivery model must understand what is required, how the requirements will be satisfied and where responsibility lies.

Putting best practices to work

The use of IT Service Management to standardise the provision of cloud services will help to deliver significant efficiencies and greatly enhance customer satisfaction. ITSM can help create a framework that better aligns the IT function to deliver services based on customer needs and feedback and can provide assurance that the cloud service provision adheres to sound service-management practices.

ITSM will also enable the achievement of operational efficiencies through improved standardisation of processes. Beyond improved service delivery, standardisation can help in the planning of new value-added services and inform service-improvement strategies. The ITSM framework will also provide a common language across the business ecosystem to facilitate communications as well as allow benchmarking against competitors.

In planning the implementation of ITSM practices, the first step should be an assessment of the current state of ITSM processes. If ITSM practices have been implemented, the IT function must map the practices to the cloud model and determine how they support delivery of cloud services. If ITSM processes are not in place, consider a phased implementation that prioritises processes that are central to the cloud delivery model.



Many organisations have traditionally relied on third-party solutions to assist in planning and automating ITSM practices. Most ITSM tools, however, were designed to manage yesterday's static IT environments; what's more, they often manage applications independently from the underlying infrastructure.

That's changing, however, with the emergence of a new generation of ITSM solutions that have been tailored to the cloud delivery model. Many vendors now offer innovative solutions geared toward managing, monitoring, controlling, and optimising cloud environments. These tools incorporate the ability to automate most service provisioning and support for decommissioning tasks, a feature commonly known as zero-touch automation. These cloud-centric solutions also provide dynamic workload management as well as the ability to manage multiple private, public, and hybrid cloud environments.

What this means for your business

An ITSM framework enables the creation of a truly customer-centric platform for efficient delivery and management of services.

Today's cloud computing market is rapidly changing, but that doesn't mean that an IT function's operating environment has to be radically different. PTS Consulting believes that all IT service providers should leverage the best practices of IT Service Management to create a standardised structure built upon a customer-centric strategy for efficient delivery and management of cloud services. An ITSM framework brings discipline and a formal service-management approach to every IT service provision.

PTS, ITSM and the Cloud

PTS's deep knowledge and experience helps organisations to plan and implement ITSM transitions, planning, adopting and executing a cloud strategy and advance business performance through improved infrastructure and service capabilities.

We can help you to prioritise and build a service management roadmap that will enhance the business value of technology by efficient delivery of services.

For a deeper conversation about an ITSM framework for cloud service providers and what it means for your business, please contact us at marketing@ptsconsulting.com

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