



ITSM in the Cloud

An Overview of Why
IT Service Management is Critical
to The Cloud

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What's Driving the Move to Cloud Computing

- Greater than 70% of businesses are considering or using private clouds (1)
- Business drivers: Speed, flexibility and economics
 - Business is adopting cloud 5x faster than IT operations (2)
- IT challenges: Sprawl, control and integration
 - 70% of IT resources captive in maintenance and operations (3)

(1) IDC, Datacenter and Cloud Computing Survey, January 2010
(2) You Are Not Ready for Internal Cloud, Forrester July 2010
(3) 2009 InformationWeek Analytics Survey



Enterprise Customer Needs

- CIOs have an uncompromising need for data & intellectual property protection, privacy, threat protection & compliance...
- Enterprise services need various levels of performance and availability, reflected through Service Level Agreements...
- Managing IT complexity requires integration and automation across all environments...
- Flexibility is necessary to evolve with dynamic cloud technologies, offerings and new business models...

75% CIOs SAY CLOUD DATA SECURITY MAJOR CONCERN

60% CIOs WORRIED ABOUT CLOUD PERFORMANCE AND AVAILABILITY

45% CONCERNED ABOUT INTEGRATION OF INTERNAL & EXTERNAL SERVICES

60% CONCERNED ABOUT LOCK-IN

SOURCE: Morgan Stanley CIO Survey: Moving to the Cloud, May 2010; IDC SaaS Adoption Survey, May 2009





Working with Cloud Computing

Definition

- A style of computing in which scalable and elastic IT-enabled capabilities are delivered as a service to external customers using Internet technologies

Direction

- Appropriate investments in private cloud computing will make it easier for enterprises to gradually use public cloud services as needed, if and when the services mature
- Because public cloud computing is years from fulfilling many enterprise needs, it is likely that IT organizations will spend more money through 2012 on private cloud-computing investments than on offerings from public cloud providers

Source: Gartner, Inc.





Essential Characteristics as defined by NIST

➤ On-demand self-service

- A consumer can unilaterally provision computing capabilities, such as server time and network storage, as needed automatically without requiring human interaction with each service's provider

➤ Broad network access

- Capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms (e.g., mobile phones, laptops, and PDAs).

➤ Resource pooling

- The provider's computing resources are pooled to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned and reassigned according to consumer demand. There is a sense of location independence in that the customer generally has no control or knowledge over the exact location of the provided resources but may be able to specify location at a higher level of abstraction (e.g., country, state, or datacenter). Examples of resources include storage, processing, memory, network bandwidth, and virtual machines.



Essential Characteristics as defined by NIST (cont'd)

➤ Rapid elasticity

- Capabilities can be rapidly and elastically provisioned, in some cases automatically, to quickly scale out and rapidly released to quickly scale in. To the consumer, the capabilities available for provisioning often appear to be unlimited and can be purchased in any quantity at any time

➤ Measured Service

- Cloud systems automatically control and optimize resource use by leveraging a metering capability at some level of abstraction appropriate to the type of service (e.g., storage, processing, bandwidth, and active user accounts). Resource usage can be monitored, controlled, and reported providing transparency for both the provider and consumer of the utilized service

Cloud Terms of Reference

A new BUSINESS MODEL for DELIVERING and CONSUMING IT RESOURCES

Consumer



Provider

SERVICE ARCHITECTURE ATTRIBUTES

On-Demand • Elastic • Shared • Pay-Per-Use • Networked

CLOUD DELIVERY MODELS



Public



Private: Community, Hosted or Internal



Hybrid/Federated

SERVICE TAXONOMY

- Software as a Service (SaaS)
 - Typically offered in a public model
 - Focused on end-user applications
- Platform as a Service (PaaS)
 - Application development platforms
 - Offered as a public and private clouds
- Infrastructure as a Service (IaaS)
 - Full range of IT service delivery
 - Elastic infrastructure for the enterprise



Very Soon ... *-as-a-Service (i.e. Anything)



Cloud Computing - Convergent Architecture



- Building Blocks for Public, Private, Hybrid Cloud:
 - Servers
 - Storage
 - Networks
 - Management Software
- Current Cloud Focus around Cost – (CE, OE, Savings)
- Will shift to include Provisioning of New Value





Why is ITSM Needed in the Cloud?

- It is Remote, Requires Best Practice Adoption:
 - Focuses on Service Provisioning and Satisfying Business Needs
 - Managing Holistic IT Effectively
 - Enables Providing Value Added Services more Transparently
 - Ensures Higher Quality, More Cost Effectiveness and Better Customer Experience
- ITSM Ensures Business-IT Alignment in a Cloud Remote Paradigm
 - Utilize cloud computing as a way to improve a current service or implement a new service
 - Ensure Service Strategy, Design, Transition and Operation
 - CSF's, KPI's and CSI Required for Continued Service Improvement to ensure Business/IT alignment, Cost Effectiveness and Service Provisioning





Service Strategy in the Cloud

- Portfolio management, Demand management, and Financial management:
 - Portfolio management describes the cloud candidate
 - Demand management for workload calculation
 - Financial management for costs calculation to meet workload demand
- Not done or done inaccurately: inefficient service delivery, and/or ineffective charging algorithm
- Service strategy is critical for cloud computing





Service Design in the Cloud

- Services are designed based on what will best deliver on Service Strategy
- Services in the Cloud are:
 - Delivered remotely
 - It is critical to be specified and designing accurately
 - Errors can negatively impact cost and difficult to correct
 - Focus is typically on service level contracts
- SLAs are required:
 - Service deliverables are understood by all parties
 - Expectations are set
- Suppliers have to be identified and selected
- In practice, external cloud supplier may be directed to meet the SLA targets but IT is accountable for failed or poor SLAs
- Availability and capacity to ensure services described in the portfolio and specified in the SLAs can be delivered by cloud computing suppliers
- IT service continuity management and information security management must be in place before the service goes “live”
- If not done or done inaccurately can have serious impact cloud effectiveness



Service Transition in the Cloud

- Service transition encompasses more than just change management
- Cloud computing needs to find synergy between existing in-house technologies and cloud technologies fuse through change management within Service Transition
- Governance issues may need to be dealt with concerning who owns change mgt:
 - Internal IT or the cloud suppliers
 - who will own and manage changes in the future
 - Change ownership and relationships are vital to establish before transition into production status
- Release and deployment management is required as Service is rolled out to ensure it is successful and well managed
 - Managing in-house and cloud technologies release versions of software and the updating of remote technologies
- Underpinning service transition are service asset and configuration management, which will detail exactly who owns the responsibility for the devices and software required to provide the new service, as well as the configuration management system where those assets reside.
- Service transition is the last-chance saloon because errors here can be extremely difficult and expensive to resolve once in production



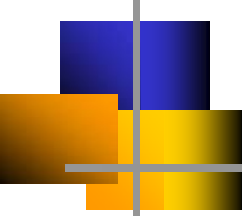


Service Operation in the Cloud

- Service Operation requires service monitoring
 - Ensures the delivery of defined and agreed to service levels specified in SLAs
- Role/ownership of Service Operation processes or support points must be clearly defined and monitored
 - Service desks may share primary focus from incident resolution and rapid responsive to root causes analysis and Problem Management
 - Use of workarounds could impact long term benefits of cloud
- Access management is critical to maintain security and satisfy any customer trust requirements
- External cloud consumers may need access to cloud data collected by the supplier



Continuous Service Improvement in the Cloud

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- Cloud Computing Requires CSI for Agility, Adaptability in Responding Quickly and Effectively to Changes in Business Conditions:
 - CSF's, KPI's and CSI Required to ensure Business/IT alignment, Cost Effectiveness and Effective Service Provisioning
 - Service Catalog, Demand Mgt, SLA's/OLA's, etc.
 - Improvement Model and 7 Step Improvement Process are Required
 - Identifying, Qualifying, Quantifying and Reporting on Service Success Factors is Mandatory for Both the Customer and the Service Provider
 - Continuous Service Improvement Ensures the Focus Stays on Services, Business/IT Alignment and Measurement in a Cloud Remote Paradigm
 - "If you can't measure it, you can't manage it" is a critical criteria



Benefits, Necessity of ITSM, the Cloud, ITO

➤ Cloud Computing is Remote:

- Holistic ITSM Supplied by an MSP Help Ensure Business can Focus on Their Business and Let an the MSP Focus on IT Service Provisioning
- ITSM is by Nature Service Provisioning with a Focus on Business Service and Need/Requirement Satisfaction
- Ensure Highest Quality, Cost Effectiveness; Customer IT SLA's to Their Business can be Maintained
- ITSM Helps Ensure that the Critical Issues of Governance are Addressed

➤ ITO Now Becomes MSP

- Helps Ensure ITO Maturity Evolution into MSP
- MSP Ensures a Pro-Active Focus on Customer Service Strategy, Design; Helps to Enable Interface at Customer CXO Level and "Trusted Advisor"
- Traditional ITO Areas of Service Transition and Operation Have Better Effectiveness and Efficiency in Meeting and Maintaining Customer Needs





What Must ITSM and MSP Get Right

- Clear Focus SaaS, IaaS, PaaS or *aaS Is NOT the Issue ...
“Service Management”aaS IS
 - Customers Focus on Business, MSP Focus IT Service Provisioning
- Service Strategy and Service Design are Critical
 - CXO Level Communication; MSP Viewed as Trusted Advisor
 - Focus on Service Catalog, SLA's/OLA's, Demand, Supplier, Security Management, etc.
- ITSM Must be Holistic and Focused on Managing Services Not IT:
 - People with the Appropriate Expertise, Utilizing Best Practice Processes with the Required Integrated Technologies to Support Them and the Required Measurements, Metrics and Reports
- Governance Must be Addressed
 - ITO Matures into MSP; An Internal “Belief System”

