Cloud Standards Customer Council

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www.cloud-council.org

The Practical Guide to Cloud Service Level Agreements

Melvin Greer
Senior Fellow, Lockheed Martin
Chair, Cloud Standards Customer Council Steering Committee

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Engaging the customer via the Cloud Standards Customer Council

The Cloud Standards Customer Council is a customer advocacy organization which:

- Provides guidance to the multiple cloud standards-defining bodies
- Establishes the criteria for open-standards-based cloud computing
- Delivers content in the form of best practices, case studies, use cases, requirements, gap analysis and recommendations for cloud standards

2011 Deliverables:

- *Practical Guide to Cloud Computing*
- *Cloud Computing Use Cases*

2012 Activities

- *Practical Guide to Cloud SLAs*
- *Security Standards Gap Analysis*

300+

companies are participating

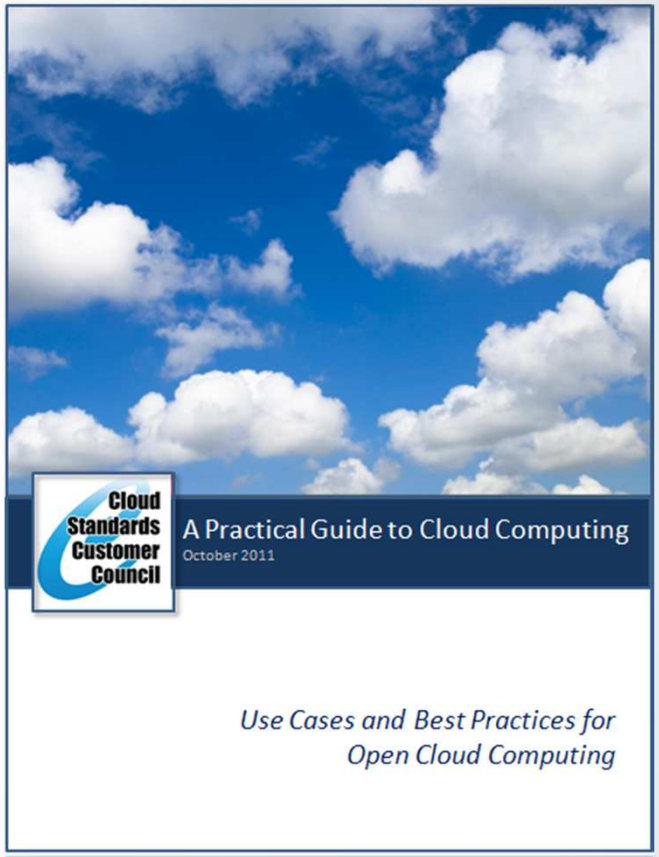
50%

operate outside the IT realm

CSCC Practical Guide to Cloud Computing

Provides a prescriptive nine step plan for successful cloud deployments

1. Assemble your team
2. Develop business case and an enterprise cloud strategy
3. Select cloud deployment model(s)
4. Select cloud service model(s)
5. Determine who will develop, test and deploy the cloud services
6. Develop a proof-of-concept (POC) before moving to production
7. Integrate with existing enterprise services
8. Develop and manage SLAs
9. Manage the cloud environment



Cloud Service Level Agreements
Current Landscape

SLAs offered by cloud providers often viewed as unsatisfactory

- *Today, most cloud SLAs weigh heavily in provider's favor*
  - *Provider's liability is limited*
  - *Burden on consumer for SLA violation notification and credit request*
- *Company size influences cloud SLAs*
  - *SMBs must accept provider terms*
  - *Larger companies able to negotiate more stringent terms*
- *Cloud SLAs vary based on service model*
  - *IaaS most mature and typically contains specific guarantees*
  - *PaaS and SaaS immature*

"*Today, customers complain regularly that SLAs are just another form of vendor boilerplate and that it is difficult if not impossible to get much modification… That doesn't mean we don't need SLA's; we do. It's important we make it clear what is going on now versus what we would like to see/influence for the future and when we are hoping that future will occur* ." **Amy Wohl, principal consultant of Wohl Associates**

Over time, competition and demand for stronger SLAs will intensify, leading to benefits for companies of all sizes

CSCC Practical Guide to Cloud SLAs

Practical Guide to Cloud SLA's: A reference to help enterprise IT analyze Cloud SLAs (P*ublished April, 2012)*

10 Steps to Evaluate Cloud SLAs

1. Understand roles and responsibilities
2. Evaluate business level policies
3. Understand service and deployment model differences
4. Identify critical performance objectives
5. Evaluate security and privacy requirements
6. Identify service management requirements
7. Prepare for service failure management
8. Understand the disaster recovery plan
9. Define an effective management process
10. Understand the exit process

"*Cloud service level agreements are important to clearly set expectations for service between cloud consumers and providers. Providing guidance to decision makers on what to expect and what to be aware of as they evaluate and compare SLAs from cloud computing providers is critical since standard terminology and values for cloud SLAs are emerging but currently do not exist.*" **Melvin Greer, Senior Fellow and Chief Strategist, Cloud Computing, Lockheed Martin**

Steps to Evaluate Cloud SLAs

1. Understand Roles & Responsibilities

- *Cloud actors: Consumer, Provider, Carrier, Broker, Auditor*
- *SLAs can contain various expectations between the actors and are not limited to quantitative measures*
- *Recognize the activities and responsibilities of each cloud actor*
- *Precisely define requirements and desired service levels for each actor*
- *Understand the spectrum of SLAs that currently exist to compare and assess tradeoffs between cost and service levels*

2. Evaluate Business Level Policies

- *Data policies of the provider are critical:*
  - *Data Preservation*
  - *Data Location*
  - *Data Privacy*
- *Consumers must consider data protection legislation*
- *Other business level policies expressed in the cloud SLA require careful evaluation*:
  - *Guarantees*
  - *Acceptable Use Policy*
  - *Excessive Usage Policy*
  - *Payment & Penalty Models*
  - *Renewals & Transferability*
  - *Industry-specific Standards*

Steps to Evaluate Cloud SLAs

3. Understand Service & Deployment Model Differences

- *Level of service objectives clarity in SLAs varies significantly for each service model:*
  - *PaaS and SaaS objectives are less precise than IaaS objectives*
  - *PaaS consumers must distinguish between development & production environments*
  - *SaaS consumers should expect general service level objectives like monthly cumulative application downtime, application response time, etc.*
- *SLA considerations for the Public model maybe greater than the Private model*
  - *SLA should specify how the provider addresses added security, availability, reliability and performance risks*

4. Identify Critical Performance Objectives

- *Performance goals are directly related to efficiency & accuracy of service delivery*
- *Performance statements that are important to consumers should be measureable and auditable, and documented in the SLA*
- *Performance considerations are dependent on the supported service model (IaaS, PaaS and SaaS)*

Steps to Evaluate Cloud SLAs

5. Evaluate Security & Privacy Requirements

- *Establish classification scheme based on the criticality and sensitivity of data*
- *Assess asset sensitivity and application operational security requirements*
- *Understand legal/regulatory laws and requirements that exist to protect the privacy of personal data*
- *Audit cloud provider's security SLA compliance*

6. Identify Service Management Requirements

- *Uniform, straightforward, transparent and extensible system for managing and monitoring cloud services*
- *Cloud SLA should include the following service management requirements:*
  - ***Auditing*** *(unbiased assessment of provider's internal systems and measures)*
  - ***Monitoring & Reporting*** *(performance & load management, notification, etc.)*
  - ***Metering*** *(assurance of accurate billing, segregate billing for different services, handle geo-related taxation issues)*
  - ***Rapid Provisioning*** *(speed, customization, testing, demand flexibility)*
  - ***Service Upgrades*** *(develop/test, problem resolution, back out process, etc.*

Steps to Evaluate Cloud SLAs

7. Prepare for Service Failure Management

- *Service failure management outlines what happens when the expected delivery of a service does not occur*
- *The primary remedy for service failure is service credits*
- *Beware of liability limitations for certain types of service interruptions*
- *Problem identification should be a joint activity between consumer and provider*

8. Understand the Disaster Recovery (DR) Plan

- *Cloud does not absolve consumers of the need for serious DR planning*
- *While most cloud SLAs provide cursory treatment of DR issues, consumers should address early in the process of cloud adoption*
- *Determine if cloud vendor provides insurance to mitigate losses*
- *Risks and solutions will be different for SaaS, IaaS and PaaS*

Steps to Evaluate Cloud SLAs

9. Define an effective Management Process

- *Cloud provider should produce monthly problem status reports*
- *Consumers should track key indicators*
- *If possible, consumers should schedule regular status meetings with provider*
- *A clear escalation process should be defined as an early warning activity*

10. Understand the Exit Process

- *A consumer exit plan should always be prepared at the outset of the SLA*
- *The exit process should include detailed procedures for ensuring business continuity*
- *Transmission, preservation and deprecation of consumer data should receive written confirmation*

CSCC Resources and Channels for Feedback / Comment

- ***Member Application:*** http://www.cloud-council.org/application
  - *Membership is free to qualifying companies*
- ***Web Site:*** *http://www.cloud-council.org*
- ***OMG Contact / Sponsorship:*** *Ken Berk - ken.berk@omg.org*
- ***Join a CSCC Working Group:*** http://www.cloud-council.org/workinggroups.htm
- ***Resources:***
  - ***Practical Guide to Cloud Computing V1****:* *http://www.cloudstandardscustomercouncil.org/10052011.htm*
  - ***Practical Guide to Cloud SLAs V1****:* *http://www.cloudstandardscustomercouncil.org/04102012.htm*
  - ***Use Cases V1:*** *http://www.cloudstandardscustomercouncil.org/Cloud_Computing_Use_Cases-2.htm*

Melvin Greer
Senior Fellow, Lockheed Martin
Chief Strategist Cloud Computing

Chair, Cloud Standards Customer Council
Steering Committee

Contact: www.melvingreer.com

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