# Cloud Standards

## Opening the Clouds

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10/27/2009

# Worlds Largest Software Specification Consortium

- Founded in 1989.
- Members are from commercial companies, software and hardware vendors, government agencies (US and other), and Academia
- 600 enterprises and 35,000 members
- Member-driven specification development
  - Members define the problems to be solved
  - Members do the work to develop the specifications
  - Members implement the specifications
- Specifications become
  - Tool enabled (e.g., UML, BPMN, SysML and all UML Profiles)
  - Basis for Services (e.g., Joint Records Management Service)
  - Profiles for Solution Development/Delivery (e.g., SOA)

1989 OMG 20 2009

OMG TWENTIETH ANNIVERSARY

# We are a global leader in providing technology enabled business solutions and services.

- Founded in 1959
- Global, end-to-end capabilities in consulting, IT and business process outsourcing, and systems integration
- Providing services for government and commercial clients including a large number of defense industrial base (DIB) organizations
- $16.74 billion for the 12 months ended April 3, 2009
- 92,000 employees in more than 90 countries worldwide
- Serving 15 industries on 6 continents
- World-class cyber security skills, technology and offerings

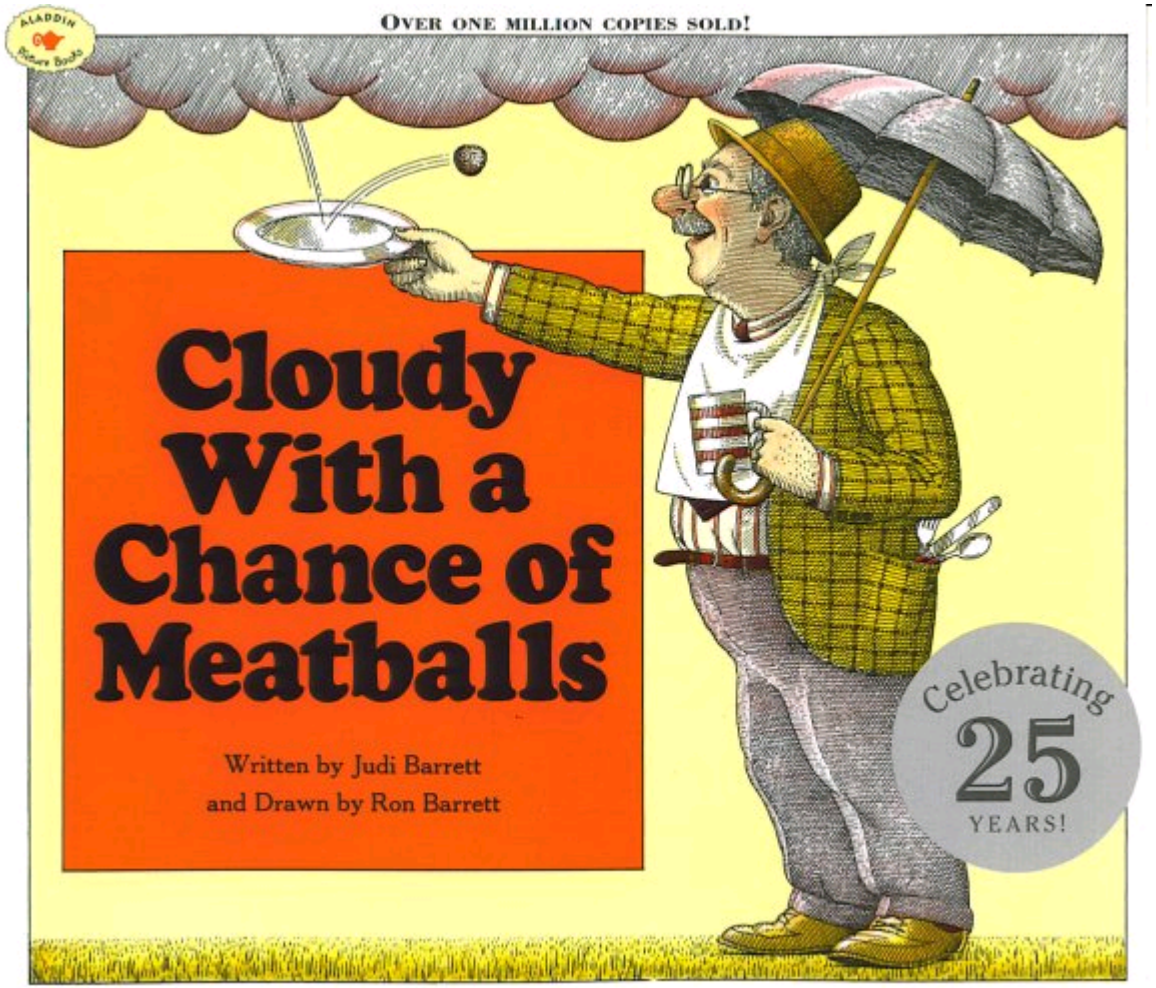
# Whose Definition?...Whose Approach?...What's Appropriate!

Recent Quote: "…I'm not happy with any definition I have herd to date…"

**Proposition:** Reduce the "cloud decision" to a business decision between capital expense and operating expense

- Get standards in place, rapidly, and we win
  - Easy to build portable, interoperable services
  - Support a fast-growing market for services with standardized SLA's
  - Cybersecurity built in
  - Value propositio
- Address "full lifecycle" aspects of the Cloud concept-to-Delivery
- In the same way UML and soaML provides a standard for innovation so, too, must a Cloud standard.

# Getting it Wrong



# A *New* Joint Resource

- *A new joint resource to find out what's going on in the industry, available from vendors and among end-users about cloud computing standards:*
  - What standards exist or are under development
  - What products implement those standards
  - Who has used those products
  - How well they have worked (success & failure stories)

# Cloud Standards Collaboration

- The leading Standards Development Organizations (SDO's) are collaborating to coordinate and communicate standards for Cloud computing and storage; working group established this year
- Many SDO's are already collaborating, more are welcome
- Committed to development of a joint resource on cloud computing strategies, standards and implementations
- Different SDO's are bringing together different but complementary abilities: storage, execution models, deployment models, service level agreements, security, authentication, privacy

# Leading Organizations

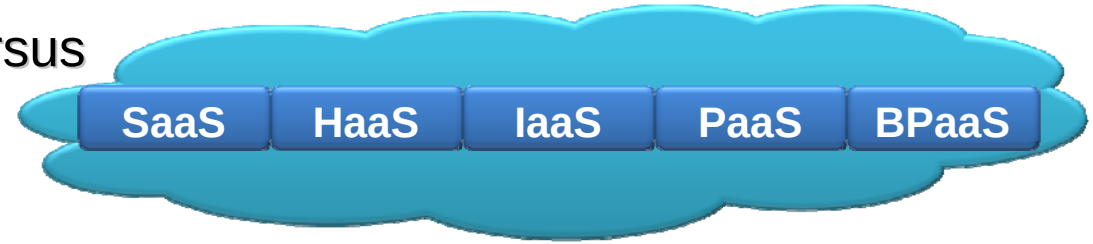
Open Cloud Consortium

# Standardization Areas

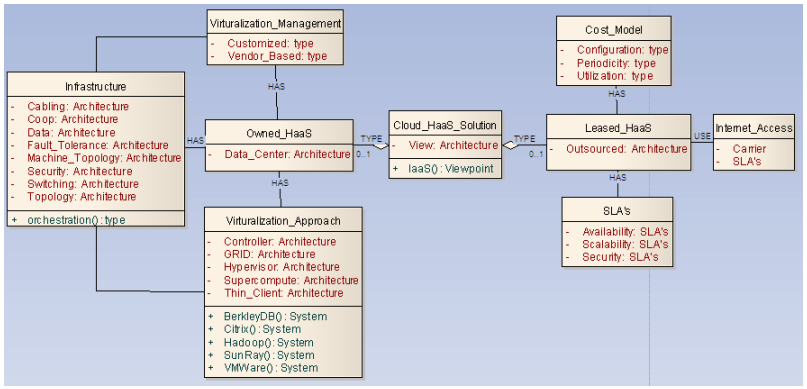
- Security (e.g. authentication, authorization)
- Interfaces to IaaS (e.g., compute, storage)
- PaaS & deployment model formats for Cloud applications
  - Resource descriptions (Required, Available)
  - Service & SLA models
- Management Frameworks
  - Governance and Policy Enforcement
  - Regulatory agreements (e.g. Data location and security)
  - SLA formats (e.g. Performance, Availability)
- Portable component descriptions (e.g. VM's)
- Data exchange formats (to and from Clouds)
- Cloud Taxonomies and Reference Models

# We are starting to initialize an OMG Request for Proposal for Cloud Computing

- Variation of Capital versus Expense Models

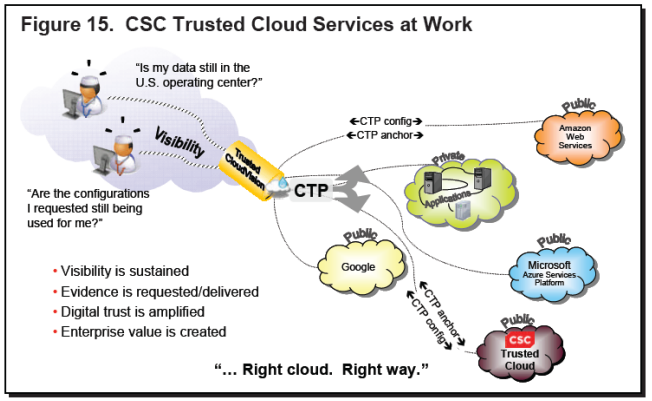



- Product Agnostic Description
  - UML profile for Cloud provides the same value as the soaML provides for SOA
  - Initial specification through provisioning
  - Multi-cloud vendor support




Snippet from OMG Draft RFP produced by CSC.

- Integrated, and trusted Cloud Cyber Security
  - Cloud-specific Threats and Attack patterns
  - Advanced Forensic specifications
  - Non-signature as well as signature-based
  - Inter-cloud trusted protocol(s)




From CSC's Digital Trust in the Cloud whitepaper.

# For further information

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