

Cloud Computing Standards: Status, Needs and Prospects

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OASIS

Cloud Computing Standards Summit
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Standards are like
parachutes.

They work best
when they're open.



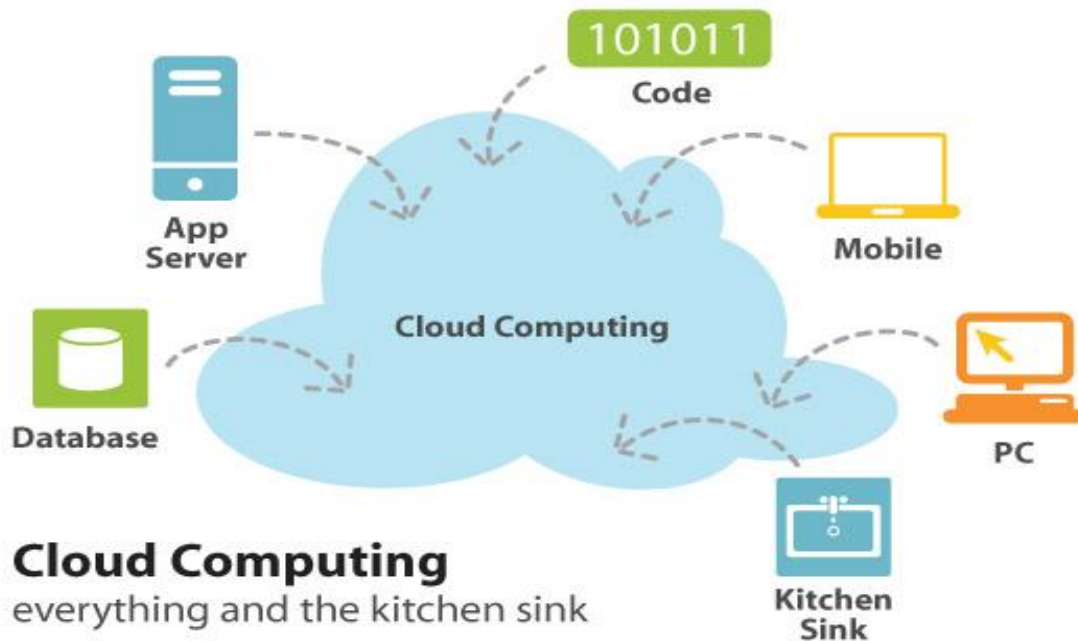
What is OASIS?

The Organization for the Advancement of Structured Information Standards is a not-for-profit, international consortium that drives the development, convergence and adoption of open standards for the global information society.

OASIS Values

- All members have a single vote (regardless of company size or contribution).
- All contributions, mailing lists, etc. available publicly (searchable and viewable even by non-members).
- Community and community values, including open and inclusive participation, are paramount.
- Standards are free.

“Inclusive” View of Cloud Computing



OASIS Outlook on Cloud Technologies

- Evolutionary – not revolutionary
- Inherits and depends on:
 - SOA/Web service approaches
 - Grid/Utility computing
 - Virtualization technologies
 - ... and others

Key Cloud innovation is user control of a flexible, “pay as you go” infrastructure.

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Cloud-Related Standards

- Security infrastructures
 - SAML and XACML
 - KMIP key management infrastructure
- Review/extend WS* standards to be cloud friendly
- XML-based cloud instance descriptions (registry and schema)
- Cloud data import/export formats

Cloud Computing: Standards View

- Many standards already exist within the enabling technologies
- Leverage existing work with Cloud standards “profiles”
- Gap analysis suggests areas of needed standards (e.g. instance import/export, interoperability, management tools, etc.)

Challenges for Cloud Standardization

- Existing market leaders hesitant
- Multiple areas are seeing significant innovation
- Various stakeholders have different desires for standardization (both areas of work and timing)
- High vendor interest and anticipated large market results in caution

Why Users Are Not Adopting Cloud Computing

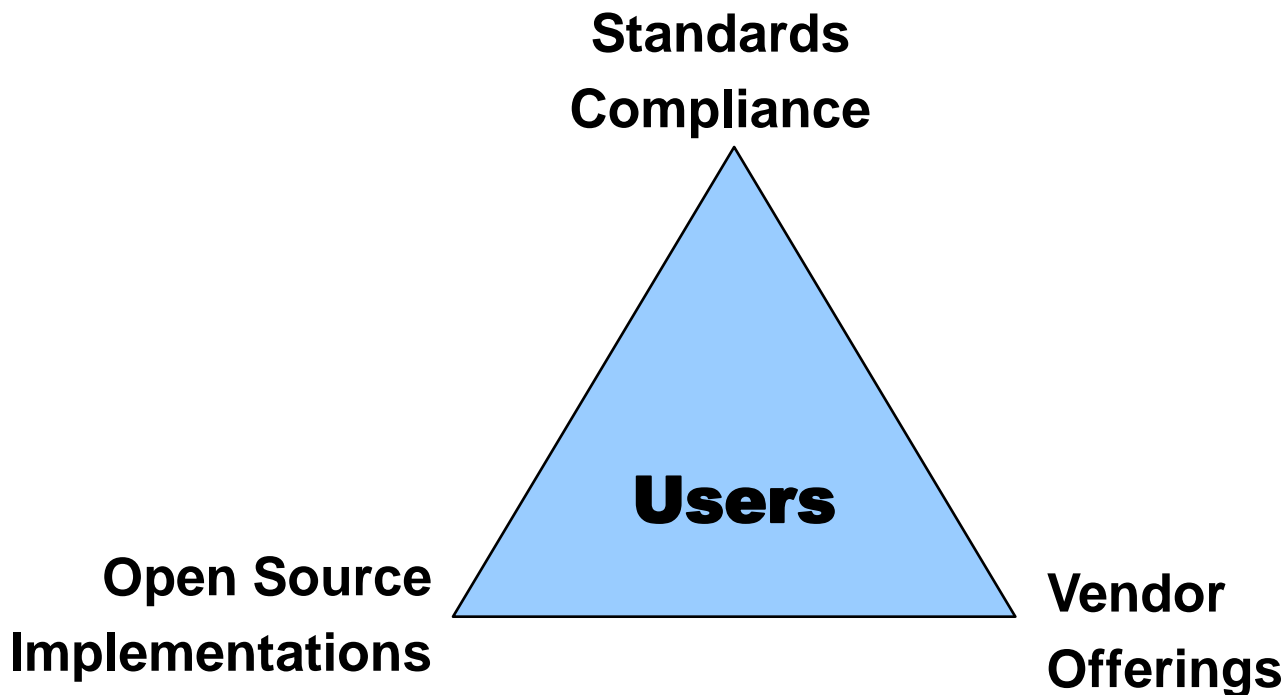
- No perceived benefits beyond existing hosting solutions
- Cost
- Availability, reliability, speed
- Too new, largely untested
- Security & compliance concerns

Source: Rackspace survey of SMBs
January 2009

Drivers Supporting Cloud Standardization

- User desire for benefits of standards
 - Interoperability and portability
 - Cost competition
 - Avoidance of vendor lock-in
- More competitive environments create larger markets following standardization
- Many vendors recognize value of standards activities

Cloud Computing: Users are Central



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OASIS backup information

Who joins OASIS?

- Users seeking to ensure their business requirements are met;
- Government agencies wanting to minimize overlap of standards and reduce risk in recommending new technologies;
- Software providers driving industry cooperation through standards; and
- Industry groups striving to coordinate domain efforts with foundational work.

OASIS Standards

Significant existing standards

- **ebXML – electronic business**
- **UBL – Universal Business Language**
- **Docbooks**
- **ODF – OpenDocument Format**
- **WS* series**
- **SAML and XACML - security**

New standards Under development

- **KMIP (crypto key management)**
- **CMIS (content management)**
- **DITA Pharmaceuticals**
- **Energy Interoperability (aka OASIS Blue, enabling Smart Grid transactions)**

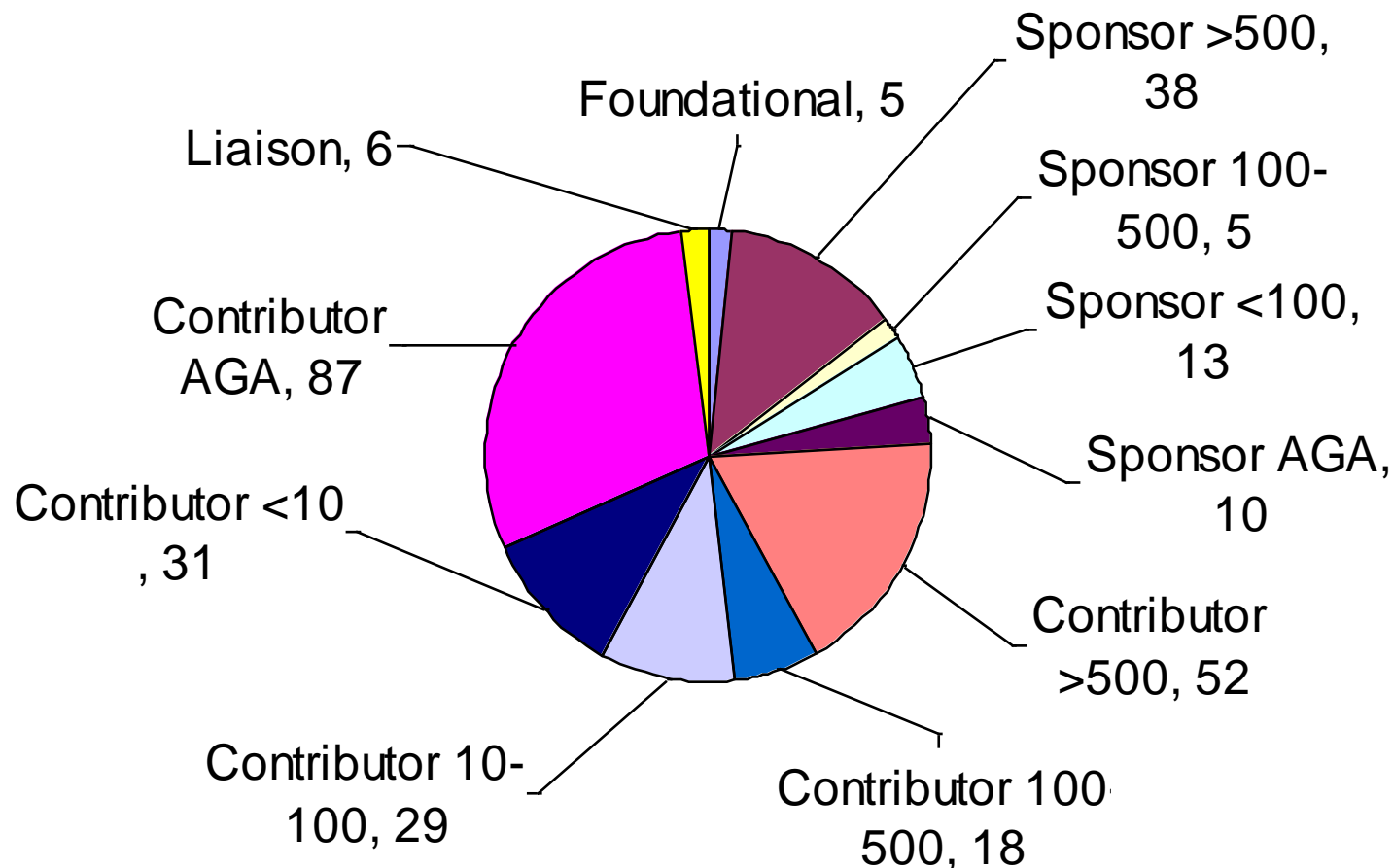
OASIS Membership Costs

- **Foundational**
 - **\$44k - \$50k**
- **Sponsor**
 - **\$9,500 - \$16k**
- **Contributor**
 - **\$1,100 - \$8k**
- **Individual**
 - **\$300**

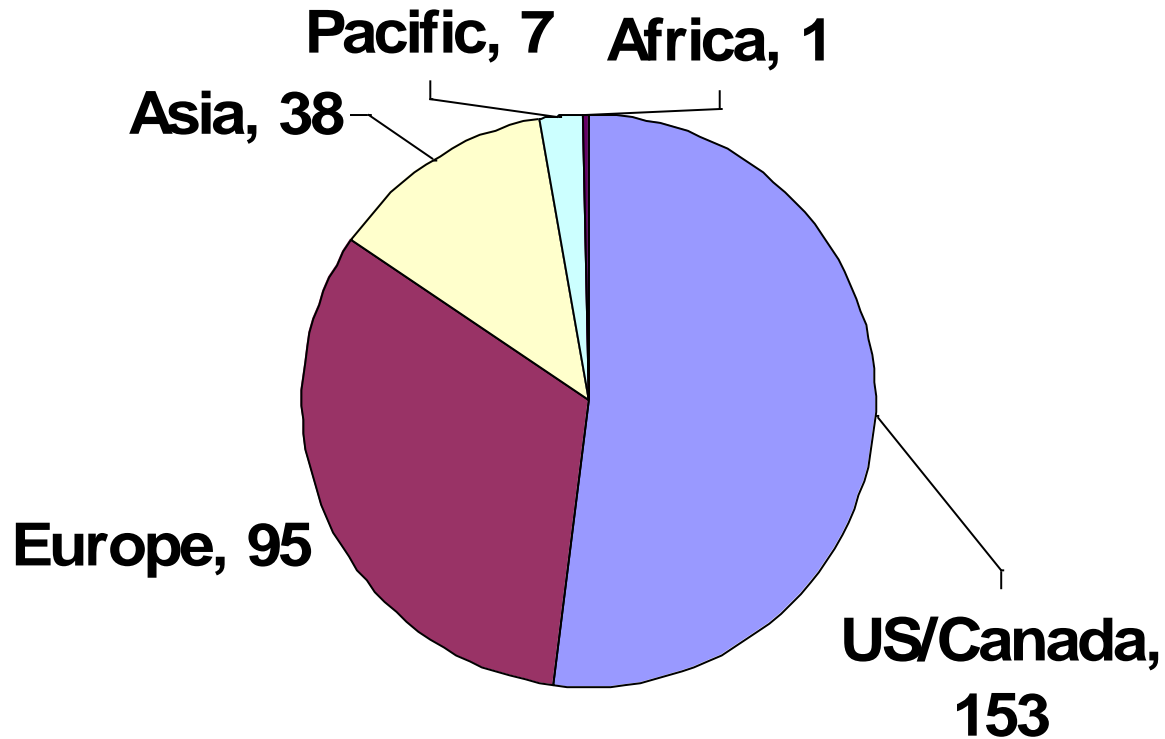
Intellectual Property Rights Policies

- RAND – common with many standards organizations, commercial-friendly
- Royalty Free (RF) – open source friendly
- Non-assertion mode – irrevocable covenant to not assert any essential claims

The Majority of Members are Small Businesses



Members Come from Around the Globe



All Members Count

Membership Category	Members in 2008	Members in 2007
Foundation Members	5	5
Sponsor >500	38	46
Sponsor 100-500	5	6
Sponsor <100	13	15
Sponsor AGA	10	6
Contributor >500	52	55
Contributor 100-500	18	20
Contributor 10-100	29	30
Contributor <10	31	26
Contributor AGA	87	97
Liaison members	6	7
Total Organizational Members	294	313
Associates	101	107
Individuals	119	103
Total All Members	514	523

OASIS Standards

- ★ **XLIFF 1.2**
- ★ **WSRP 2.0**
- ★ **SDD 1.0**
- ★ **UOML Part 1 1.0**
- ★ **EDXL-HAVE 1.0**
- ★ **EDXL-RM 1.0**
- ★ **Web Services MakeConnection 1.1**
- ★ **Web Services ReliableMessaging Policy 1.2**
- ★ **Web Services ReliableMessaging 1.2**
- ★ **WS-SecurityPolicy 1.3**
- ★ **WS-SecureConversation 1.4**
- ★ **WS-Trust 1.4**
- ★ **WS-BusinessActivity 1.2**
- ★ **WS-AtomicTransaction 1.2**
- ★ **WS-Coordination 1.2**
- ★ **UIMA 1.0**

New OASIS Committees: Content Management/Publishing

- **Content Management Interoperability Services (CMIS)**
- **OpenDocument Format Interoperability/Conformance (OIC)**
- **DITA Adoption**
- **Semantic Support for Electronic Business Document Interoperability (SET)**
- **Open Architecture for XML Authoring and Localization Reference Model (OAXAL)**
- **Unstructured Operation Markup Language eXtended (UOML-X)**



New OASIS Committees: Security

- **Key Management Interoperability Protocol (KMIP)**
- **Open Reputation Management Systems (ORMS)**
- **Cross-Enterprise Security/Privacy Authorization (XSPA)**
- **Identity Metasystem Interoperability (IMI)**



New OASIS Committees: SOA, Web Services, eCommerce

- **Web Services Discovery and Devices Profile (WS-DD)**
- **SOA for Telecom (SOA-TEL)**
- **SOA End-to-End Resource Planning (SOA-EERP)**
- **Business Process Execution Language for People (BPEL4People)**
- **ebXML Core**
- **Testing and Monitoring Internet Exchanges (TaMIE)**



New OASIS Committees: Emergency, Collaboration

- **Emergency Management Adoption**
- **Integrated Collaboration Object Model for Interoperable Collaboration Services (ICOM)**



New Research

Cover Pages

- Cryptographic Key Management <http://xml.coverpages.org/keyManagement.html>
- Content Management Interoperability Services (CMIS) <http://xml.coverpages.org/cmisis.html>
- XML in Clinical Research and Healthcare Industries <http://xml.coverpages.org/healthcare.html>
- XML and Emergency Management <http://xml.coverpages.org/emergencyManagement.html>
- XML Daily Newslink Newsletter <http://xml.coverpages.org/newsletterArchive.html>

AskTheTab@lists.oasis-open.org

- For answers on how to:
 - better structure specifications
 - clarify charters
 - organize conformance sections
 - work better within TCs
- Questions remain anonymous
- Answers are published in FAQ format



New TC Tools

- Wikis
- JIRA
- SVN
- MarkMail search

TC-Hosted Webinars and Interops

- Promote adoption of TC work
- Recruit new participation in TC
- Generate sales leads for Sponsor-level TC members

