Cloud Computing Policy of Japan

June 2013

Ministry of Internal Affairs and Communications (MIC), JAPAN
Ultra high-speed broadband: FTTH, Cable internet, FWA, BWA (limited to downstream transmission speeds of 30Mbps or more, except for FTTH)

The numbers in parenthesis are data for only fixed broadband service.
Broadband Subscriptions in Japan

As of End Dec. 2012

Total: 53.6M

- FTTH: 23.5M
- LTE: 13.6M
- CATV: 6.0M
- ADSL: 5.7M
- BWA: 4.7M
Individuals who ordered or purchased goods or services on the Internet, 2011 or latest year available

OECD Internet Economy Outlook 2012 - © OECD 2012
Businesses selling/purchasing over the Internet, 2011 or latest available year

OECD Internet Economy Outlook 2012 - © OECD 2012
Promotion of ICT Utilization

Infrastructure Development
Utilization

- Promotion of the full utilization of ICT
- Improvement of the environment for the diffusion of cloud services
- Support for creation of new cloud services
- International expansion of cloud services

Technology

- Promotion of research and development of the next generation cloud technologies
- Promotion of standardization

International Relations

- Building a consensus on international rules in international frameworks such as APEC, OECD, and ITU
- Holding dialogue on policies under the cooperation of industries, academia, and the government
Progress Status (Utilization)

- Activities of Japan Cloud Consortium (JCC)
  - Developing guidelines regarding ASP, SaaS and cloud computing
  - Developing and Operating “Common Government Platform”
  - Support project for cloud service development in small and medium-sized companies
  - Relaxation of the regulation for data center construction
Progress Status (Technology, International Relations)

- Standard Setting for Technical Requirements of Inter-cloud
- Research and Development for security technology to promote shift to cloud in preparation for disasters
- ICT policy dialogues
Japan Cloud Consortium

General Meeting (around twice a year; a symposium is also held)

Secretarial Board
(a secretariat consisting of Nippon Keidanren and several other enterprises/organizations)

415 members
<<340 enterprises 63 organizations 12 individuals (Apr. 2013)>>

Next Generation Cloud Service Discussion WG
Cloud Migration Discussion WG
Business Collaboration Cloud Discussion WG
Education Cloud WG
Agricultural Cloud WG
Health/Medical Cloud WG
Tourism Cloud WG
Fishery Cloud WG
M2M Big data WG

NICT IPA ASPIC JDCC GICTF GIPC OSS-C Related organization
In order to promote the usage of Cloud services while ensuring consumer rights, Japan has established the Guidelines, which indicate how to use cloud services appropriately.

### <For Providers>

**Common**
- Guide for collaboration among ASP-SaaS Providers (MIC, Jul.2012) ....etc

**Specific**
- Guideline for ASP-SaaS service providers in the field of school affairs (MIC, Oct.2010)
- Guide for providing traceability service of rice and processed rice food via ASP, SaaS or cloud computing (MIC, Jul.2012) ....etc

### <For Users>

**Common**
- Guide to Protecting Cloud Service Users and Ensuring Compliance (ASPIC, July.2011) ....etc

**Common**
- Guideline for Installing and Using ASP-SaaS by Local Government (MIC, Apr.2010)
- Guideline for Installation of Information Systems for School Affairs as a part of Total School Computerization Plan (APPLIC, 2009) ....etc
Effect of collaboration between clouds

If it is possible to collaborate between clouds...
Through cooperation between operators when information processing is congested, only minimal investment by each operator is required.

Strengthen responsiveness to disaster through collaboration between clouds distributed in remote locations.
Promotes global open inter-cloud technologies and standardization through collaboration among academia, government and industry

Set up in July 17, 2009

http://www.gictf.jp/index_e.html

Chair: Tomonori Aoyama

General Assembly

Board of Directors

Technology Task Force

1. Collect and share information with organizations and at conferences related to cloud computing
2. Identify technical needs related to secure cloud interworking applicable to e-Government, etc.
3. Develop a standard set of specifications applicable to e-Government, etc. and propose it to relevant standards bodies
4. Propose inter-cloud test beds

Application Task Force

1. Identify technical needs related to securing cloud interworking
2. Promote widespread use of cloud interworking technology

Member: 87 organizations
NTT, KDDI, NEC, Hitachi, Fujitsu, Toshiba, Microsoft, IBM, Oracle, Cisco, VMware, IIJ, BIGLOBE, NICT, NII, NRI, etc.
38 personal members from Unvirs.
Collaboration among GICTF and various SDOs

DE-facto Standard

- OGF
- OMG
- OGF Europe
- DMTF
- SNIA
- OGF Siena
- Cloud Interoperability Roadmaps Session

De-jure Standard

- US Government
- NIST CC forum
- ITU-T SG13
- CC Standard Study Group
- ISO/IEC JTC SC38
- DE-facto Standard
- GICTF
- Open Source Community
- OpenStack
- Cloud Business
- Google, Salesforce, Amazon, etc.
The World’s First Public International Standards Setting on Cloud Network

7 frameworks of public international standards are almost completed

I. Cloud Computing Definition
   • Vocabulary definition, etc.

II. Requirements
   • Service requirements
   • Use cases, etc.

III. Cloud Network
   • Network structures
   • Network requirements, etc.

IV. Cloud Computing Infrastructure
   • Structures of infrastructure
   • Infrastructure requirements, etc.

V. IP Resources Management
   • Ability of resources management, etc.

VI. Inter-Cloud
   • Method of inter-cloud
   • Security management, etc.

VII. Cloud Computing DaaS
   • Requirements and architecture of Desktop as a Service

Major Deliverables

I. “Use case and functional requirements for Inter-Cloud Computing” E/Aug 2010

II. “Inter-Cloud interface specification on protocols” J/Dec 2011, E/Apr 2012

III. “Inter-Cloud interface specification on resources data model for network control” J/Dec 2011, E/Apr 2012

IV. “Network and technical requirements in support of Inter-Cloud” J/Dec 2011 E/Apr 2012

http://www.gictf.jp/index_e.html

Proposal based on the results
The cloud service market was worth 700 billion yen (8.6 billion U.S. dollars*) in 2011. It will grow around four times in size to reach approximately 2.8 trillion yen (34.6 billion U.S. dollars*) by 2016. Note: The market is expected to expand by approximately 560 billion yen (6.9 billion U.S. dollars*) through the support measures for diffusion of cloud services in such areas as government, medical care, and education.

*converted at the rate of 81yen/U.S. dollar (as of April 2012)