



# **Cloud Service Market Trend in Japan**

**NTT Communications Corporation**

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## Self Introduction

- **NTT Communications**  
Marketing of Cloud Services

- **Visiting fellow of The Center for Global Communications**  
(GLOCOM), International University of Japan

- **Blogger ITmedia Alternative blog 『Business 2.0』**  
<http://blogs.itmedia.co.jp/business20/>

- **Books**

the author of **Cloud Business** Nyumon (an introduction to cloud business)

the author of **Open Cloud** Nyumon (an introduction to Open Cloud)

- Twitter @masayukihayashi @cloud\_1topi

## **Cloud Activities**

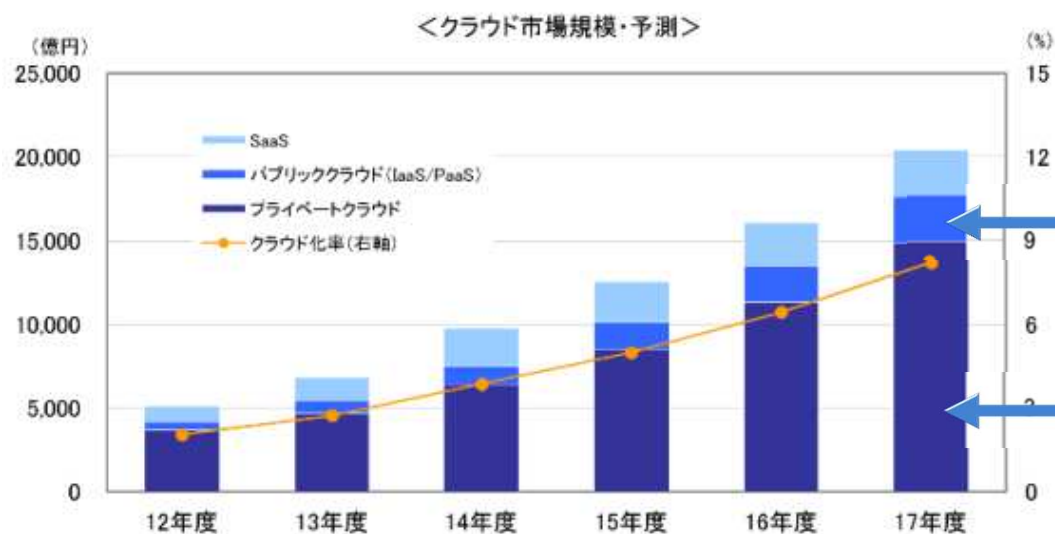
- **Cloud Utilization Promotion Agency, Adviser**
- **Open Cloud Demonstration Experiment Taskforce, Member**
- **Japan CloudStack Users Group, Adviser**
- **Open Compute Project Japan, Member**
- **Cloud Business Alliance**
- **SUCRE (Supporting Cloud Research Exploitation) ,JP Member**
- **Nippon Cloud Working Group, Samurai Cloud Supporter**
- **Made in Japan Software Consortium**
- **ASPIC Open Data Group**



# **Cloud Business**

# Market Forecast of Cloud Business

- Japanese cloud market will reach 1 trillion yen in 2015, to 2 trillion yen in 2017
- Companies about 70% of Company give priority to cloud, "cloud first" is expanding.



## ■ Public Cloud Vender

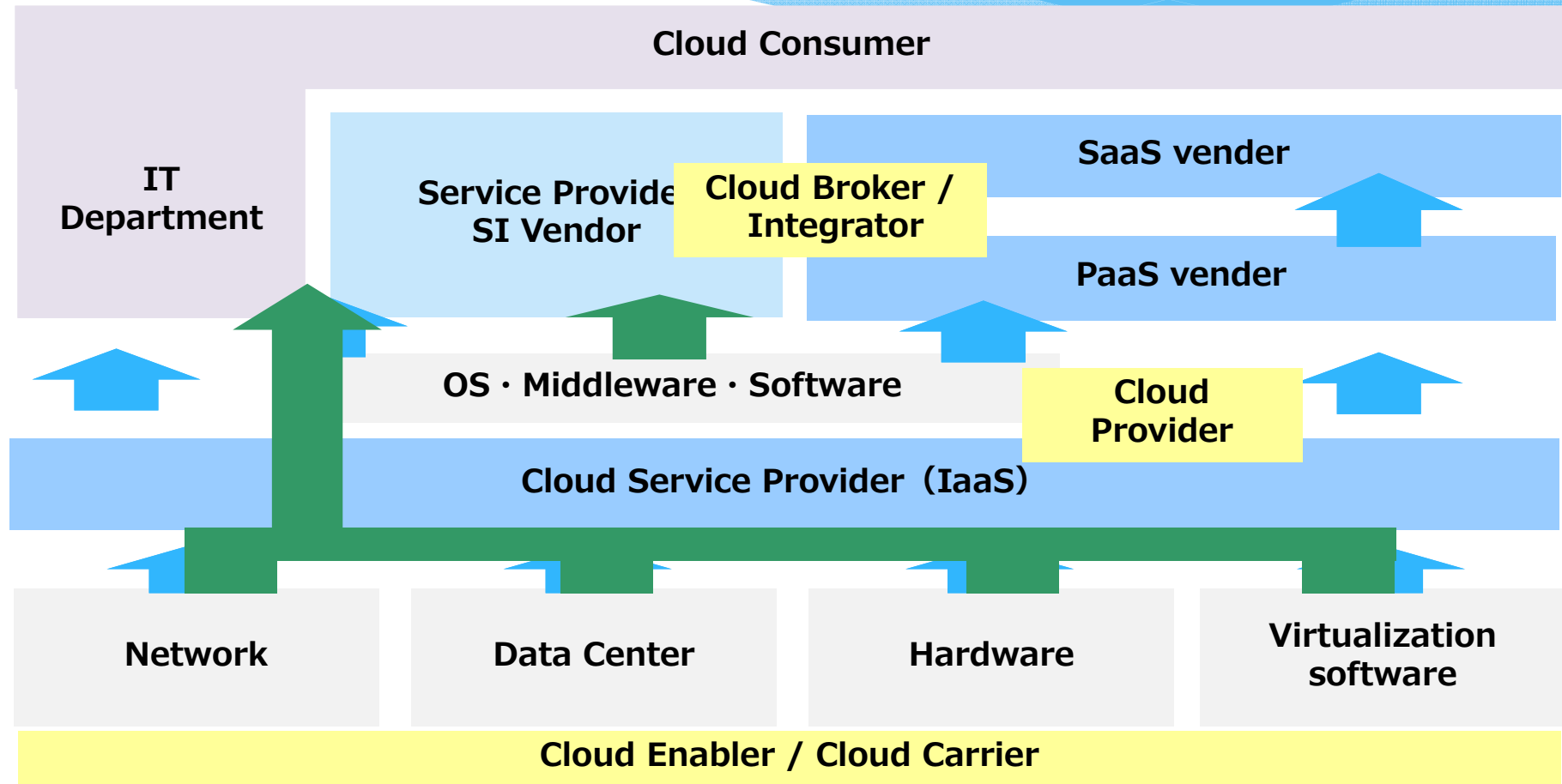
- (1) Company A (19.1%)
- (2) Company G
- (3) **NTT Com**

## ■ Private Cloud Vender

- (1) **NTT Com (13.0%)**
- (2) Company F
- (3) Company A
- (3) Company N
- (4) Company M

出所：MM総研 国内クラウドサービス需要動向 2013.8.30

# Diagram of Cloud Vendors



# Cloud Shift of IT Vendor

Almost all IT Vendor shift to Cloud Service Provider

- \* **Telecom/DataCenter**

- \* PaaS/SaaS offering based on IaaS

- \* **Software Vender**

- \* From Licensing to Service Offering

- \* **Hardware Vender**

- \* From Hardware to Service Offering

- \* **System Integrator**

- \* Multi Cloud Consulting, Cloud Broker, Cloud Integrator

- \* **IT Department**

- \* Cloud Provider with in Enterprise

NTT Com  
KDDI、Softbank  
IDC Frontier etc

Microsoft (Windows Azure)  
Red hat (Open Hybrid Cloud)  
VMware (vCloud Hybrid Service)  
IBM (Open Cloud)

HP (HP Converged Cloud)  
Dell (Dell Cloud Dedicated)

# Cloud Ecosystem

## ● Enterprise Cloud

- Mission critical system
- Hybrid Cloud
- Cloud Integration

## ● Consumer Cloud

- Web Service/ eCommerce
- Social Game
- Smart TV, ebook

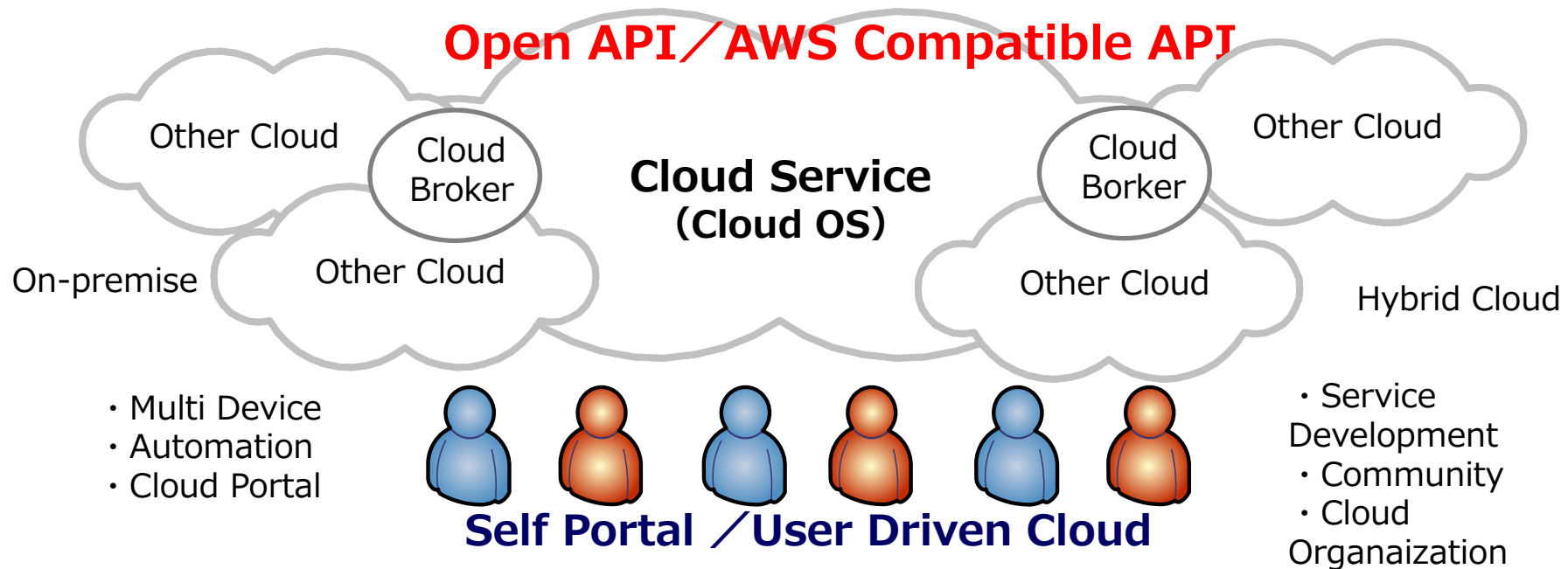
## ● Community Cloud

- Government Cloud
- Medical, Education etc
- Smart Community

Application Market

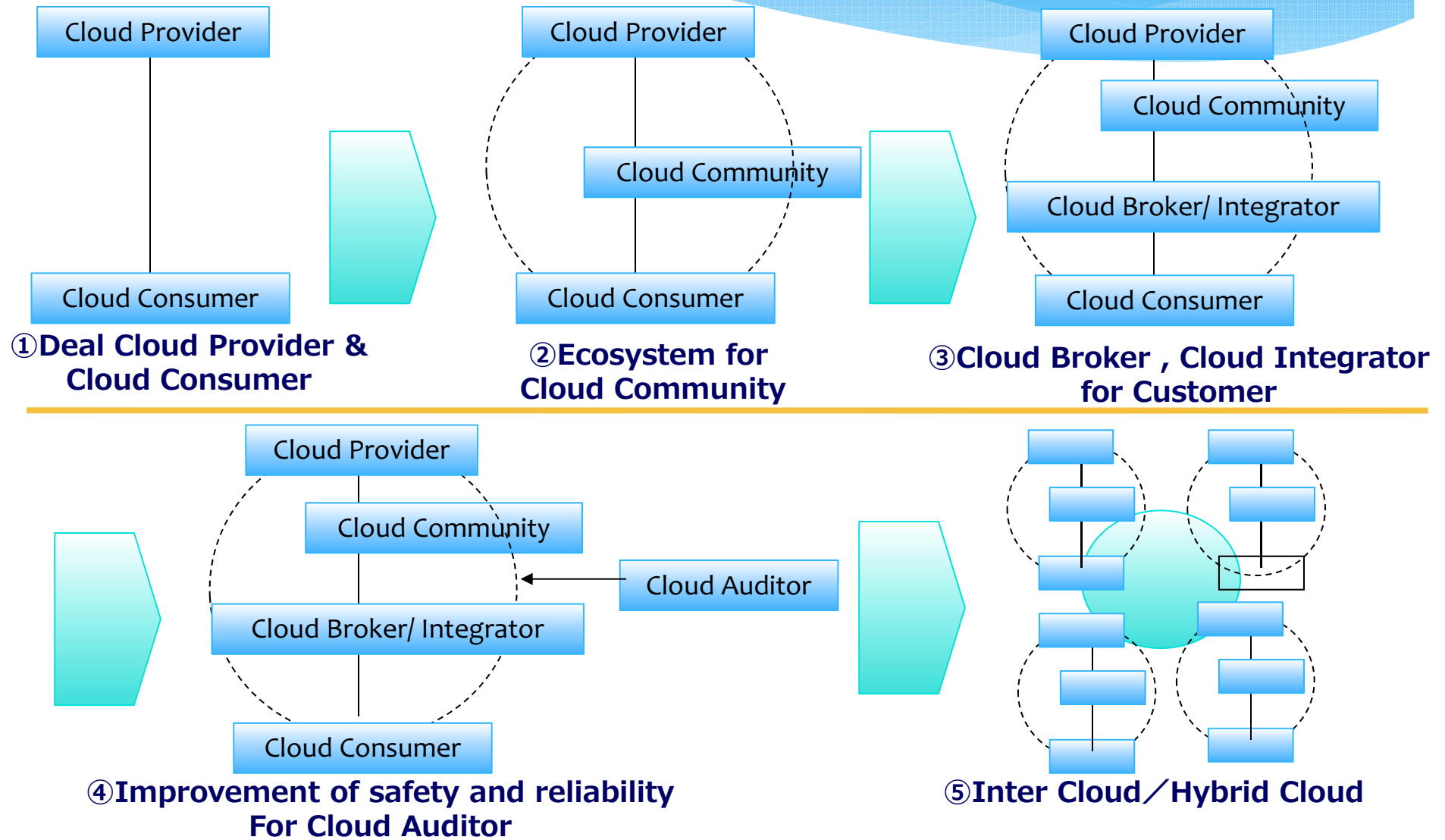
Partner/independent software vendor

**Open API / AWS Compatible API**

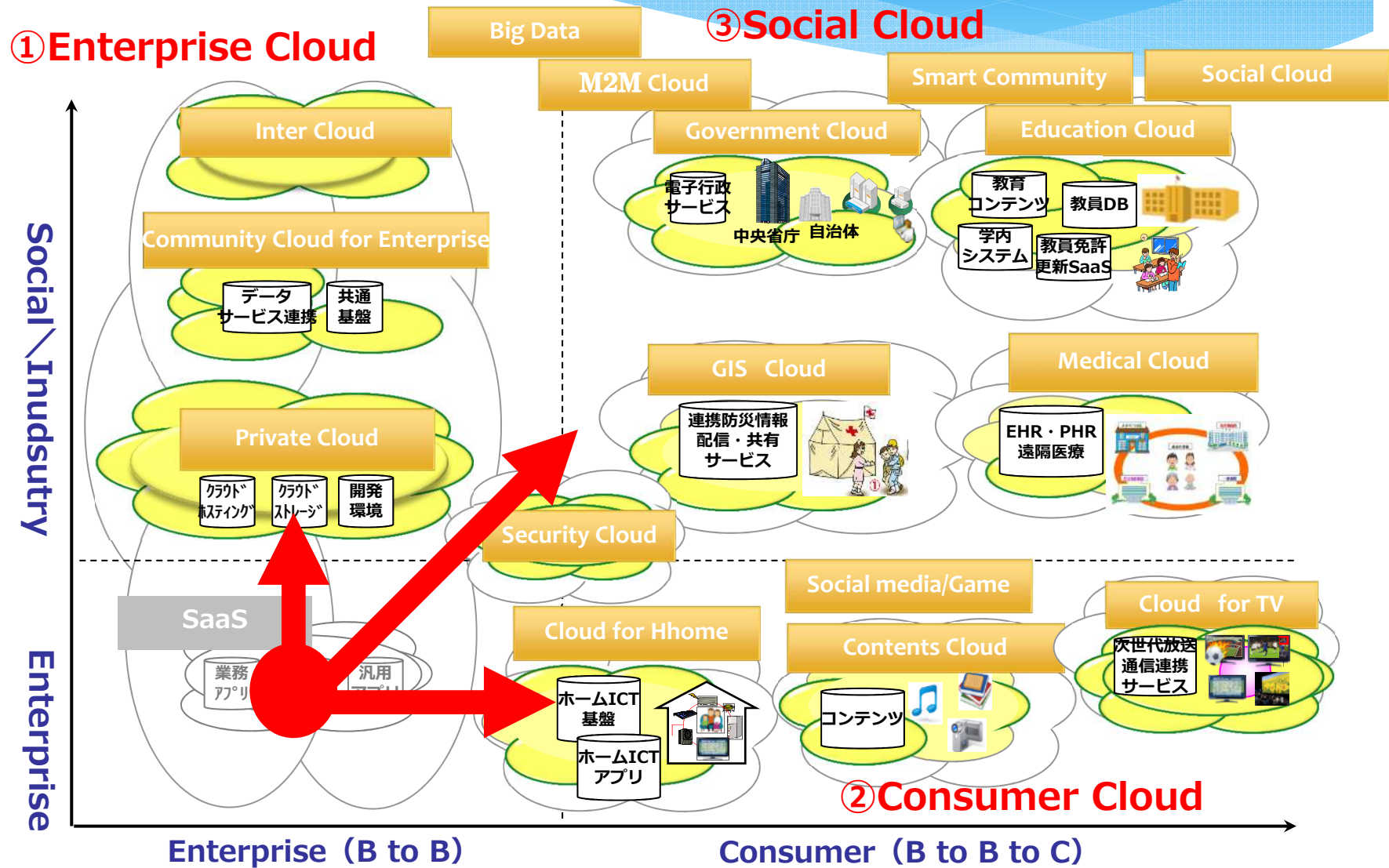




# Evolution of Cloud Ecosystem



# Domain Cloud EcoSystem



# Cloud Ecosystem (IaaS)

## Original Cloud Ecosystem

### **AWS(Amazon Web Services)**

- Market Leader
- AWS Uses Group (around 30 in Japan)
- Partner (more than 100)
  - ・ NRI, Hitachi, CTC, NTT Data, NEC etc

### **Microsoft (Azure)**

- Windows Server & Office User
- Big Partner Ecosystem
- Partner Support 「Cloud Competency」 Program will start next year

## Open Cloud Ecosystem

### **CloudStack, OpenStack** **(Open Source Cloud platform)**

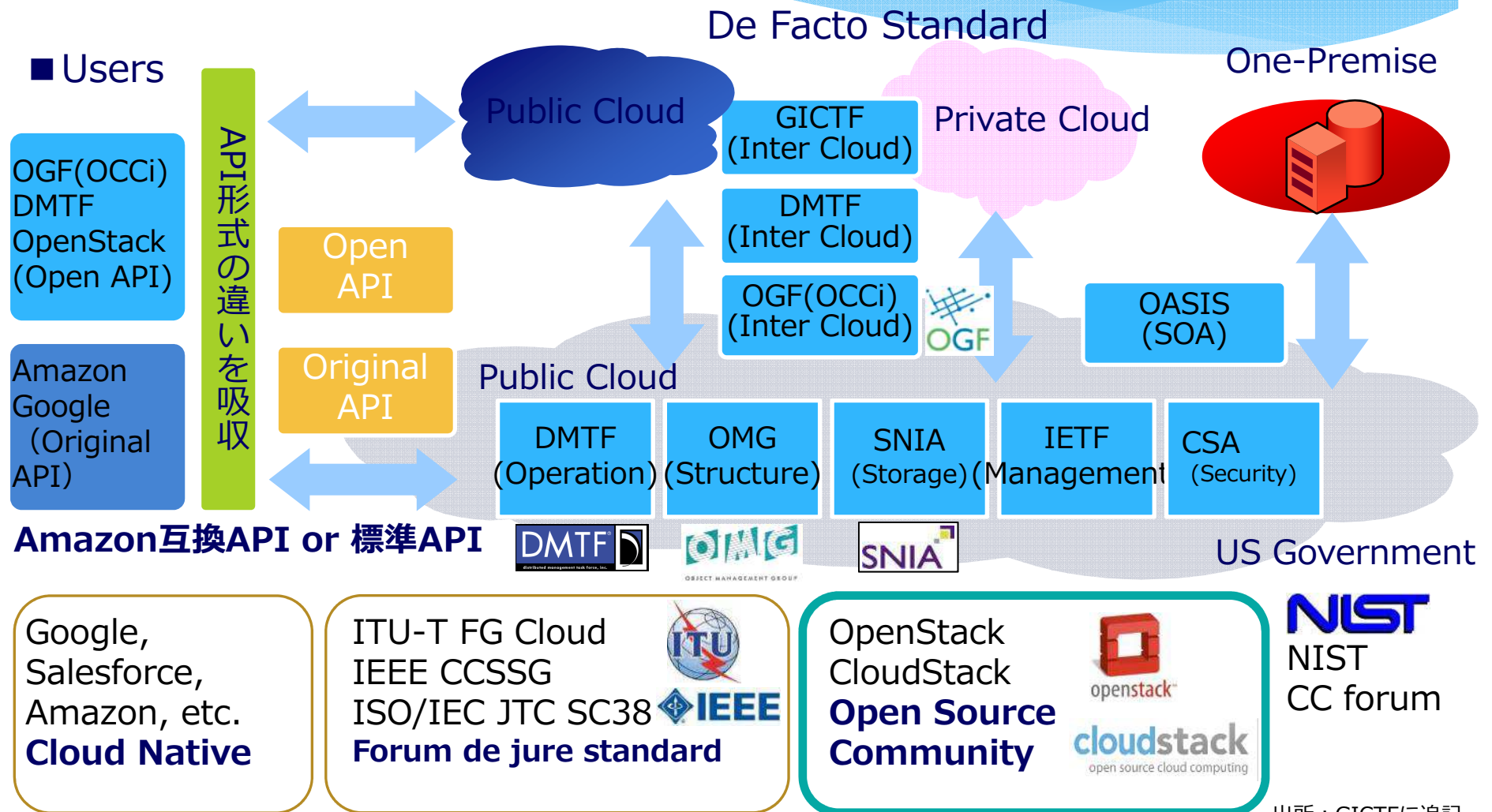
**NTT Com, IDC Frontier, KDDI, SCSK, Intec, Uniadex etc**

- Anti vendor lock in
- Open API (+ Amazon API compatibility)
- Open Ecosystem

### **Original Ecosystem in Japan**

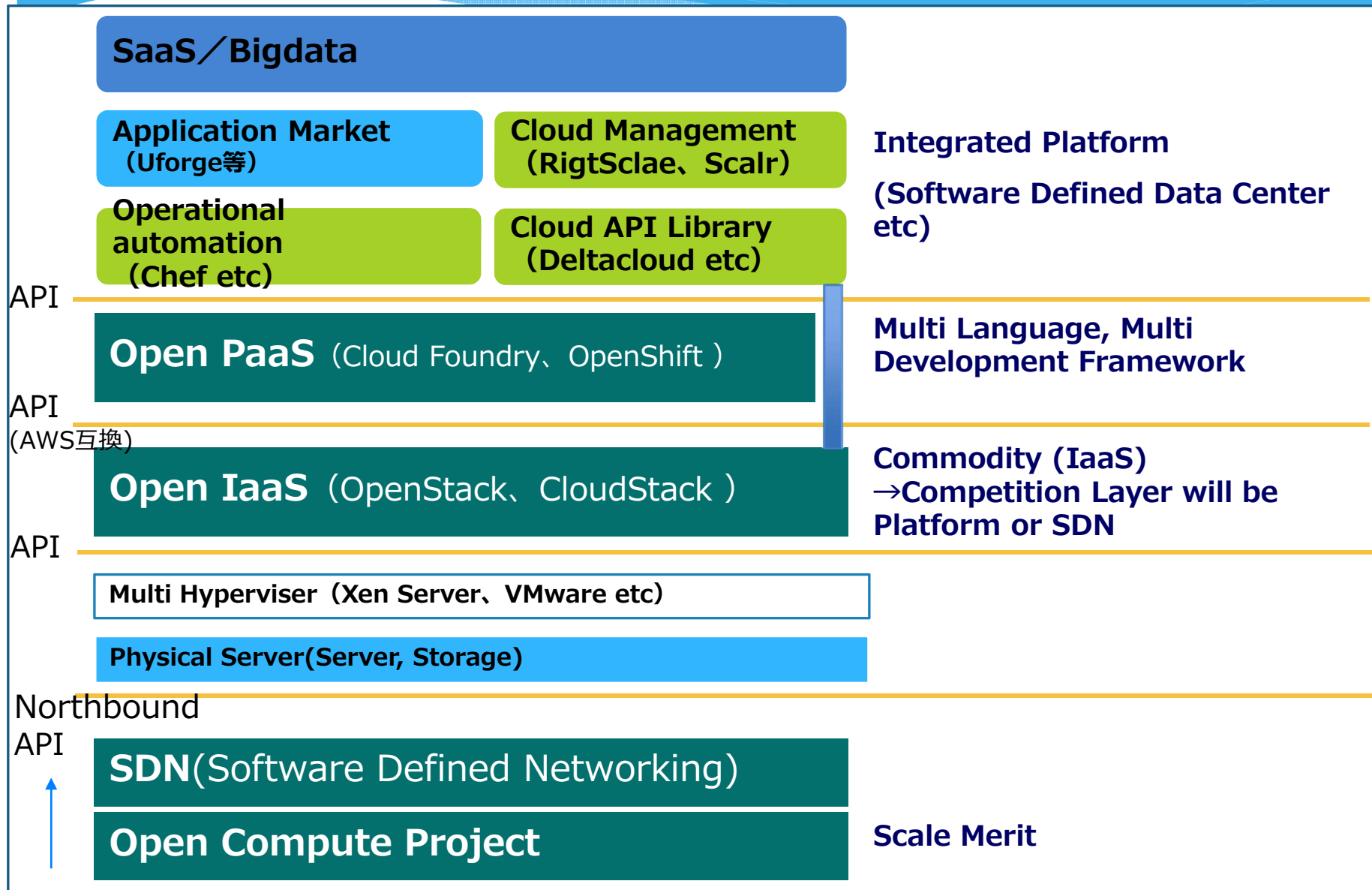
**Data Hotel, NIFTY Cloud, GMO Cloud, Biglobe etc**

# Trend of Cloud Standardization



出所：GICTFに追記

# Cloud (Vertical Integration)



# CloudStack Vender in Japan

Vender	Service	Summary
<b>NTT Com</b>	Cloud <sup>n</sup>	Support RDB, DNS, Autoscale, CDN, Global
<b>IDC Frontier</b>	IDCF Cloud Service IDCF Private Cloud Service	Public Cloud and Private Cloud
<b>KDDI</b>	KDDI Cloud Platform Service	Dedicated 「Premium」 、 VMの 「Value」 、 Customaized 「Custom」
<b>SCSK</b>	NetXCloud/ Cloud System Enabler	Public Cloud and Private Cloud Solution
<b>Uniadex</b>	U-Cloud Cloud development	Multi Vender, Private Cloud Solution
<b>Nissho electronic</b>	Nissho-Block	Private Cloud Platform 「Nissho-Blocks IaaS」
<b>Hitachi</b>	Hitachi Cloud platform Solution	CloudStack and haddoop. Total Solution

# OpenStack Vender in Japan

事業者名	サービス名称	概要
GMO Internet	Onamae.com VPS	OpenStack and optional service

# Open PaaS

## Development tool/

API	Authentication, Billing
SDK	Development kit for Mobile software
Development Framework	Rails, Sinatra, Spring, Node.js, Eclipse etc



## Core PaaS

Programming Language	Ruby, Java, Python, PHP, Apex
Application Server	Apache Tomcat, Jboss
Data base service	MySQL, PostgreSQL, MongoDB, Redis, Amazon RDS, OracleDB, Microsoft SQL, Database.com
Messaging	RabbitMQ, Amazon SQS, Red Hat MRG
Other Service Support	API
Other PaaS Function	Application Integration, Business Process Management, Data Integration, Portal, Security



## IaaS

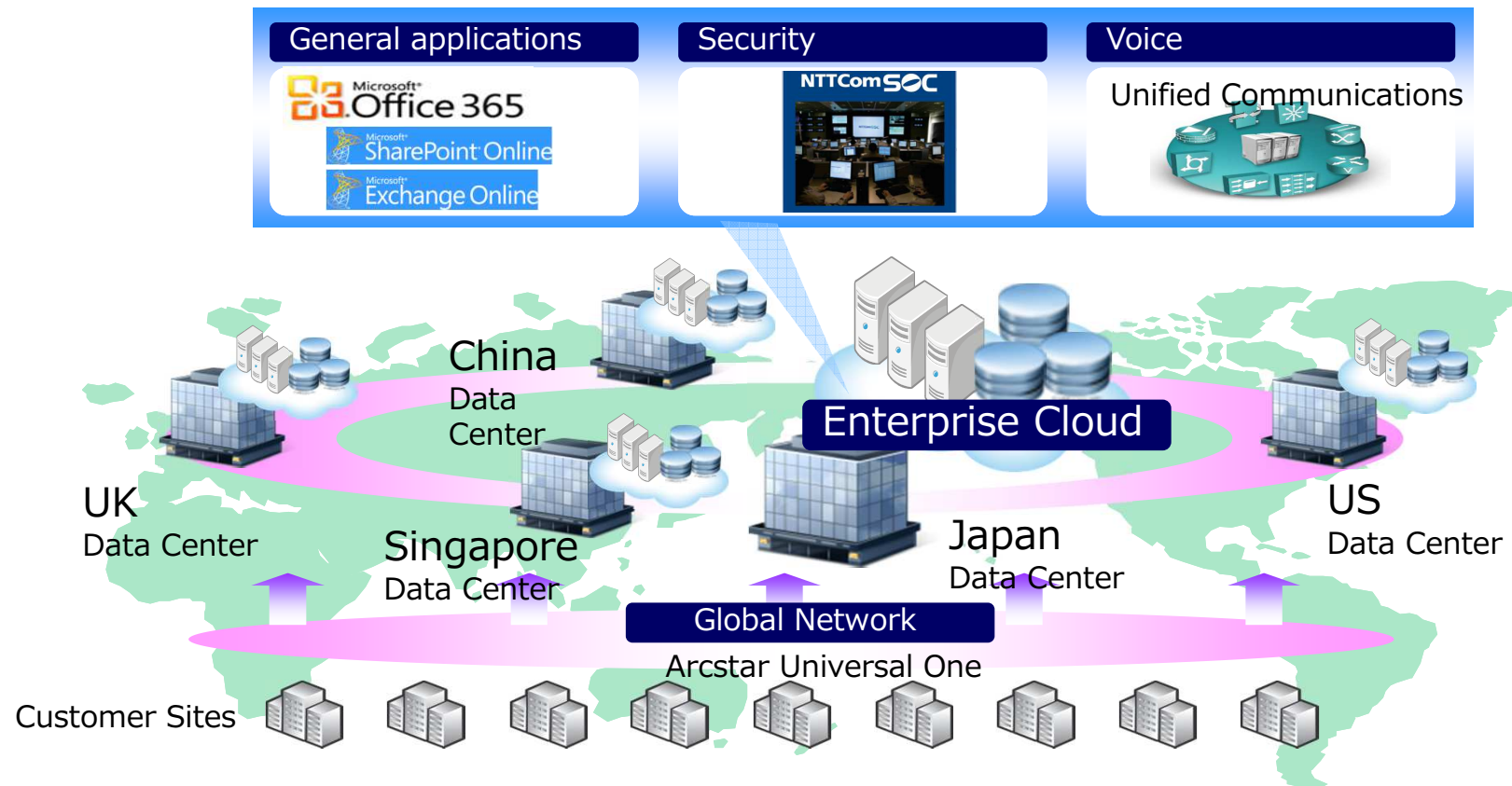
(Amazon EC2, CloudStack, OpenStack, Eucalyptus, VMware vSphere etc)





# Use Case

# Case Study A Company (1/2)



## Case Study A Company (2/2)

Approximately 30% ICT cost reduction achieved through consolidation of local systems

### Server

- Migrate almost 1,700 physical servers to Cloud
- 30% remained on-premise(CAD, control system)
- 25% disposal of servers in process of migration

### Network

- Concentrated on one global carrier
- We offered 5-6 alternative options for each branch office, such as support system, number of staff, etc.

### Business App

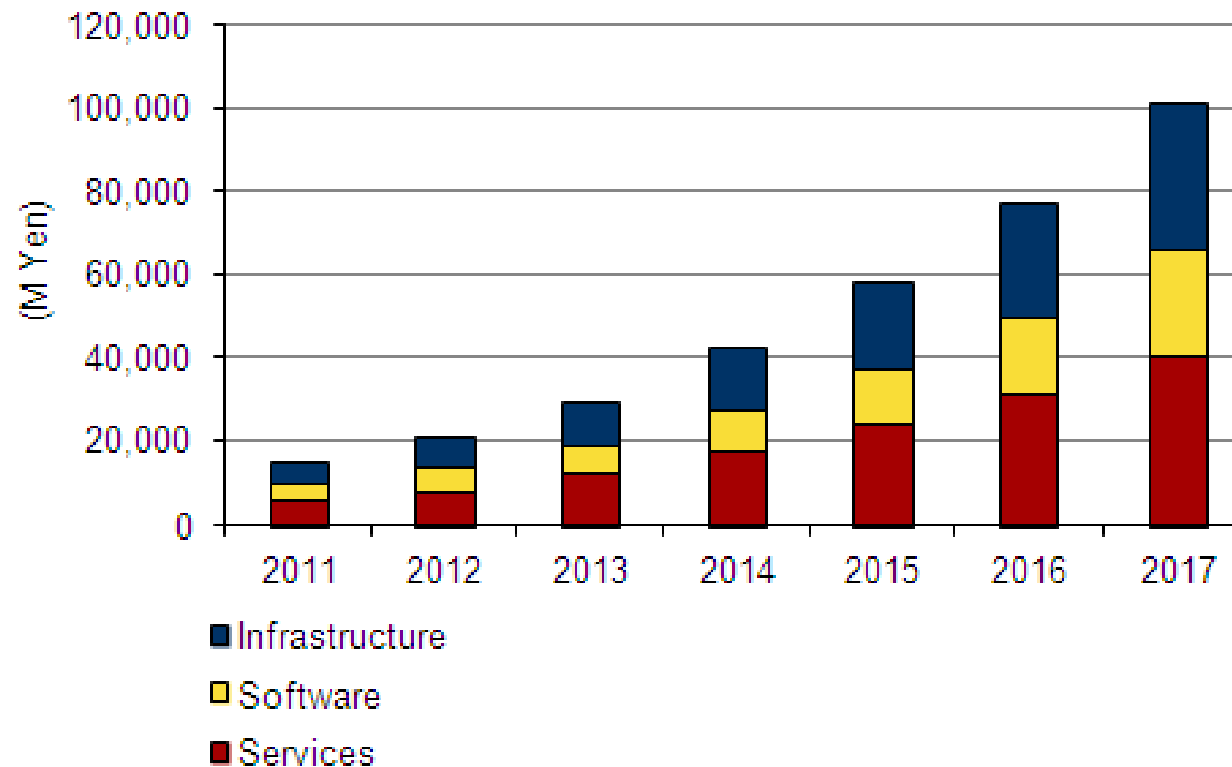
- Integrated ERP package on a company-wide basis.
- Outsourcing common operation
- Standardize document rules



# **Big Data Business**

# Big Data Business Market

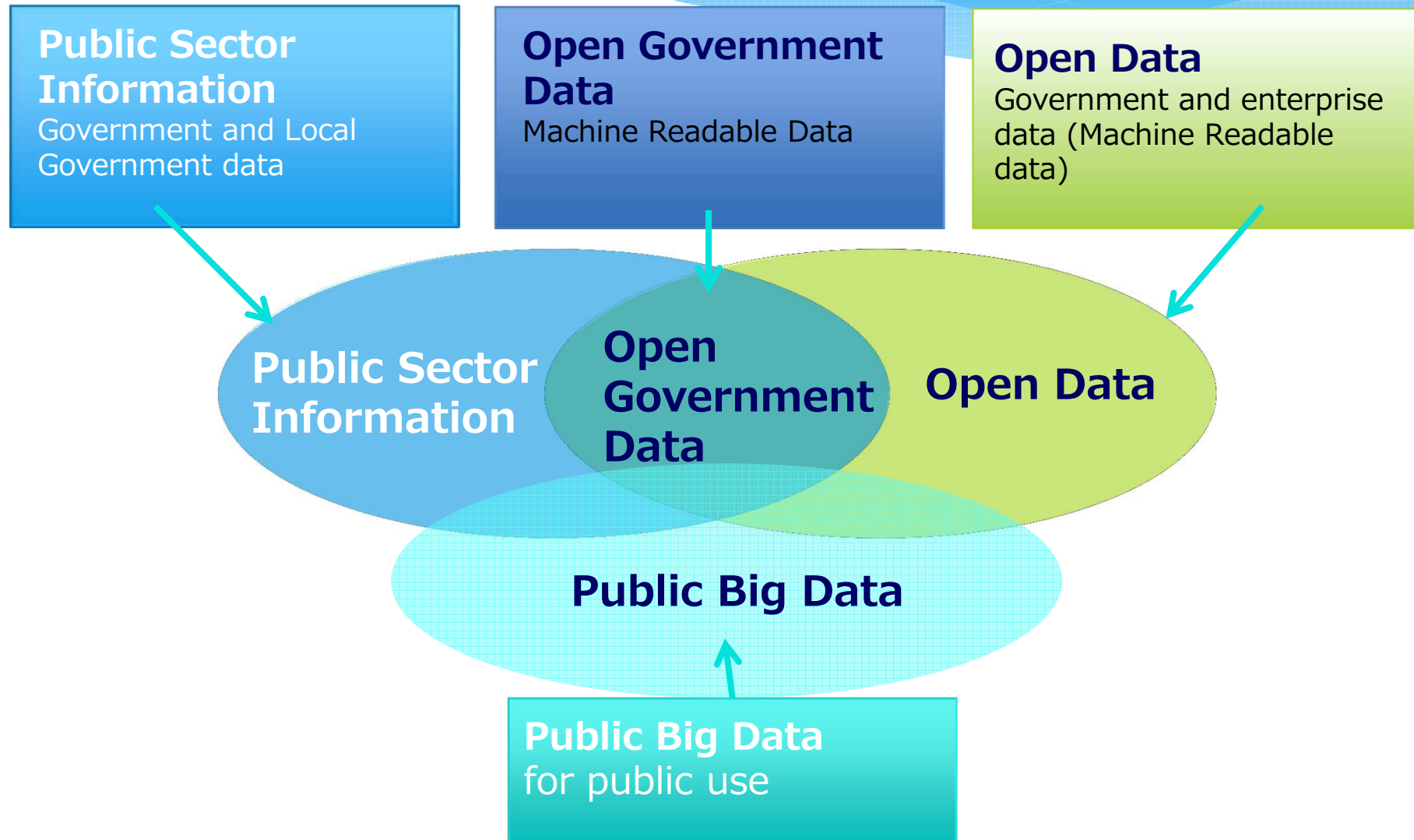
• Domestic big data technology / services market in 2012, 20.6 billion. Expected to reach 1,015 billion in 2017



Domestic big data technology / service market End-User Revenue forecast 、 2011～2017

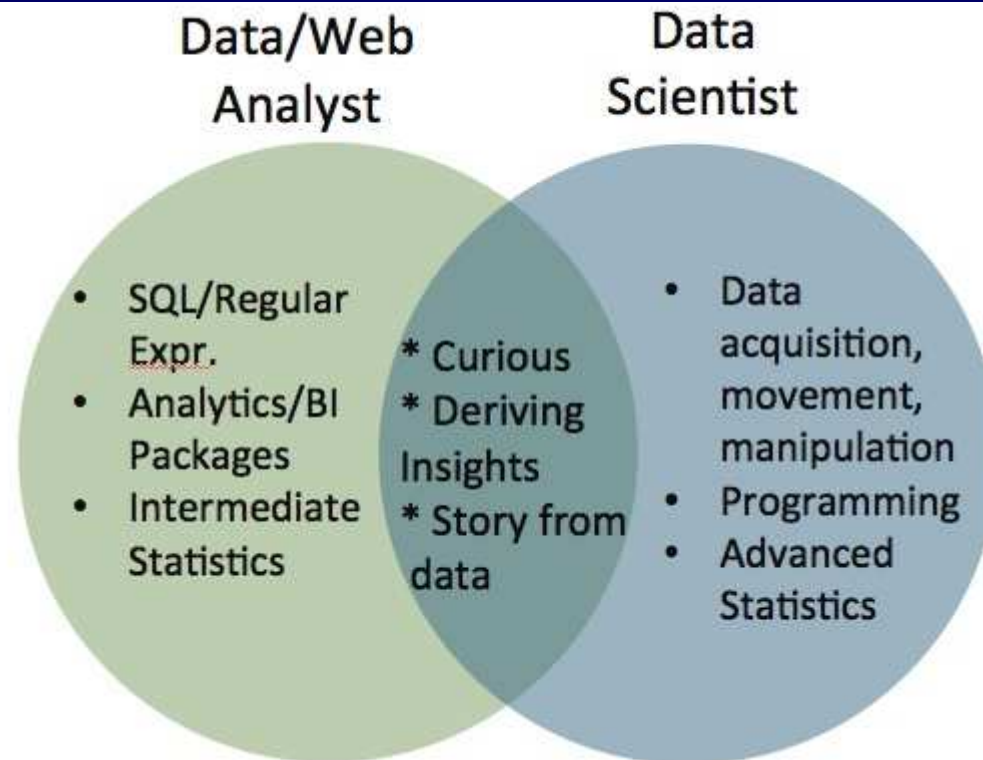
出所：IDC Japan 国内ビッグデータテクノロジー／サービス市場予測を発表2013.8.26

# Big Data for public and Open Data



# Data Scientist

Rising alongside the relatively new technology of big data is the new job title data scientist. While not tied exclusively to big data projects, the data scientist role does complement them because of the increased breadth and depth of data being examined, as compared to traditional roles.

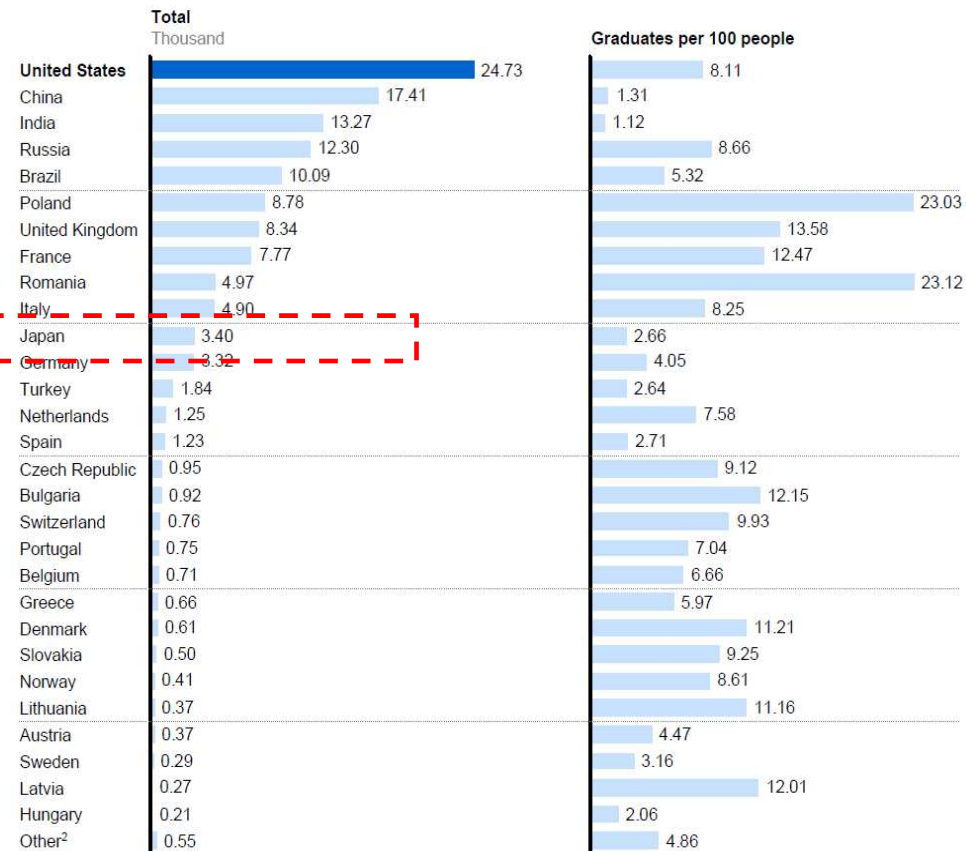


# The number of graduates with the skills of data analysis in the world

- University number of graduates with a talent related to data analysis, Japan 3,400

China 17,410  
India 13,270  
Russia 12,300  
Brazil 10,090  
Poland 8,780  
UK 8,340  
France 7,770  
Romania 4,970  
Italy 4,900  
**Japan 3,400**  
Germany 3,320

Number of graduates with deep analytical training in 2008<sup>1</sup>



〔出所〕 McKinsey Global Institute「Big data: The next frontier for innovation, competition, and productivity」  
2011.5



# Data Scientist in Japan

Vender	Data Scientist	Summary
Accenture	100 (300)	Provides a wide range of analysis from strategic planning, to the operation. Expand the service to the axis six areas of SCM optimization and social media analysis, training, diagnosis, and M2M
Unisys	50	Scenarios classification of one 4 CRM/O2O, social and industrial infrastructure, compliance and risk management, information systems infrastructure construction, to collect data, the implementation application tool and application of each scenario and hypothesis testing, and construction of big data analysis infrastructure
Hitachi	80(300)	Order to create value through their big data, supported by point of view close to the management more
Fujitsu	100(The double by 2015)	100 engineers human strength as a group of experts to analyze big data. System building several hundred people, including SE can provide the relevant services of big data
NEC	100(300 by 2015)	Promotion of participation in the demonstration experiment with customers and strengthen development of advanced technology, including M2M and Hadoop, and marketing and promotion in the company-wide

<http://www.nikkei.com/article/DGXNZO57421630X10C13A7EA1000>

# Data Scientist in Japan

User	Team	Summary
JAL	Business Analyst	In order to increase the number of PV op-ed page of the trip ticket selling site, View trend analysis of the member site.
Oosaka GAS	Business Analalys Center(10)	The expert group mathematical programming, statistical analysis, environment, climate, energy, and IT. The reform and improvement of repair completion rate of household gas appliances, the decision-making process in the data analysis
P&G	Business Analyst	Decision-making, such as consumer behavior, to explore the site in potential customers with, business analysts provide options and data required for decision-making
Kao	Data Scientist(6)	Expand to promotional products and measures the results of the data analysis. Brand value improvement to analyze the repeat rate. It also analyzes the flow rate to other companies, to implement the brakes are coming out from the counter products
Toshiba	Business Analyst	Line design, transport, analysis by digital simulation of three production, efficiency of semiconductor production

# Big Data Business Ecosystem

