

# IT Spending and Key Technology Forecasts of Japanese market.

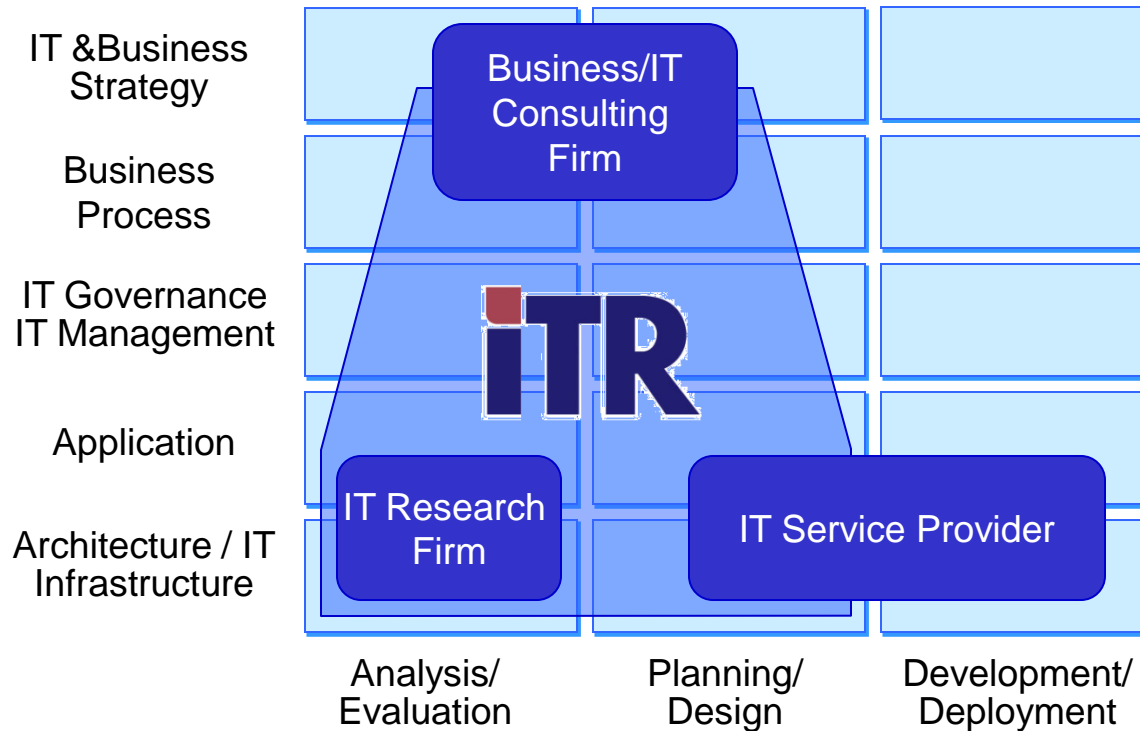
ITR Corporation  
Akira MAKINO



[www.itr.co.jp](http://www.itr.co.jp)

## About us.

ITR is an independent IT research and consulting firm. We provide hands-on advice about technology market, partner evaluations and technology deployment to drive your business.



### Offerings

- IT focused and independent Research (no vendor alliances).
- Timely and precise data on product markets and technology trends (product cut, industry vertical).
- Practical advice to support critical decision making.

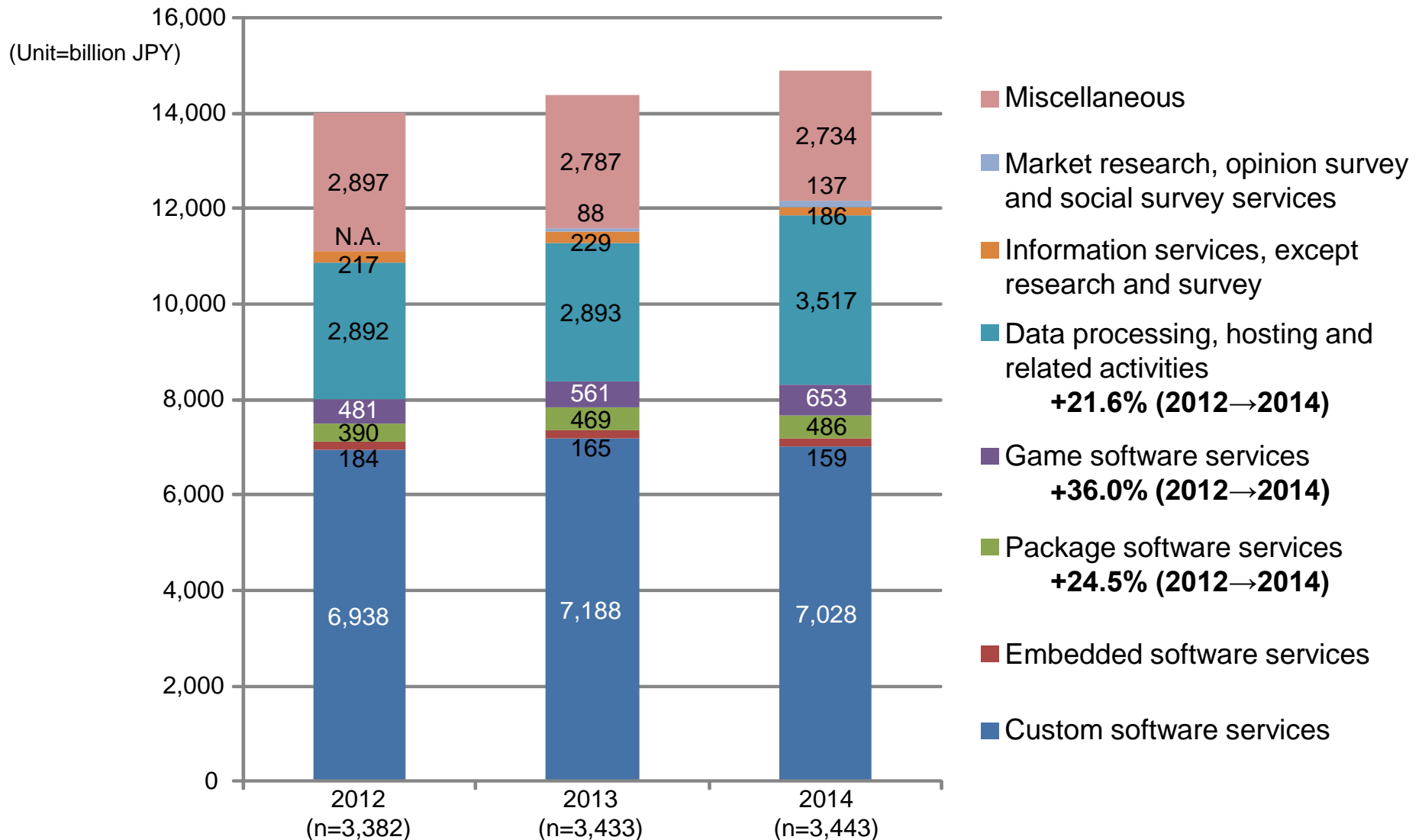
### Main Areas of Expertise

- Alignment of business strategy and Information Technologies
- Strategic data utilization
- IT cost / performance benchmarks
- Vendor/product evaluation and selection
- Global IT governance and local deployment planning

- Japanese IT market
  - IT Spending
  - Key topics
  - Products and services
  - Technologies at a glance

# World's 3rd IT market at steady growth.

- Estimated markets are ; Software (14.6 trillion JPY)、Data processing (4.5 trillion JPY) Online services (2.1 trillion JPY) in 2014.



# Cost effectiveness.

## Average system engineer fees in the Japanese market (2016)

Unit=1000JPY/month

	Tier3(n=223)				Tier2(n=198)				Tier1(n=282)				Total
	HW Resell	User	Inde-pendent	Ave	HW Resell	User	Inde-pendent	Ave	HW Resell	User	Inde-pendent	Ave	
Consultant	1,367	0	1,221	1,250	1,362	1,504	1,560	1,477	1,891	1,800	1,952	1,907	1,673
Project Manager	1,194	1,250	1,006	1,071	1,600	1,467	1,290	1,436	1,475	1,420	1,612	1,501	1,407
Senior SE	1,250	1,078	870	903	1,282	1,135	1,082	1,154	1,263	1,186	1,186	1,231	1,142
Middle SE	810	696	782	771	873	876	899	886	969	912	966	958	889
Entry SE	708	603	645	646	792	683	747	737	777	775	801	784	730
Programmer	645	460	615	607	696	576	683	659	731	691	715	720	667
Help Desk	500	383	520	495	494	475	582	520	590	565	600	588	540
System Operator	500	390	421	423	460	522	618	536	496	637	609	539	502

Company sizes are based on annual revenue; "Tier3"<5 billion JPY, "Tier2" 5-10 billion JPY, "Tier1" <10 billion JPY

## Average SaaS pricing in the Japanese market (2016)

Application	Tools	Pricing
Collaboration	e-mail, schedule, online storage	1user 500JPY/month
HR	HR, Payroll	1user 1,000JPY/month
	Time and Workforce Management	1user 400JPY/month
Financial	Financial management, Planning	1user 10,000JPY/month

# Well organized sales channels.

## IT Service for **ERP, web** **marketing**

- Consulting
- SaaS/ASP
- DC/IaaS
- Outsourcing
- Call center
- Help desk
- System operation, surveillance

## NW Carrier for **MDM,** **SaaS**

- Fixed
- Mobile
- MVNO
- Cloud/IaaS

## Communication equipment for **security** and **appliance**

- Router
- Switch
- LAN/WAN
- Wifi
- Web/TV MTG
- Smartphone
- Feature phone
- IP phone
- PBX

## PC vendor for **school, local** **government**

- Desktop PC
- Laptop PC
- Thin client
- Tablet
- Phablet

## HW vendor for **virtualization**

- Server
- Converged infrastructure
- Storage
- Tape
- Mainframe
- HPC
- Cloud

## Application Vendor for **ISV**

- OS
- ERP
- CRM
- SCM
- BI
- DBMS
- Security
- Auth/ID
- Data integration

## OA for **ECM,** **Medical**

- Printer
- Copy
- Scanner
- Fax
- All-in-one

### Network Integrator

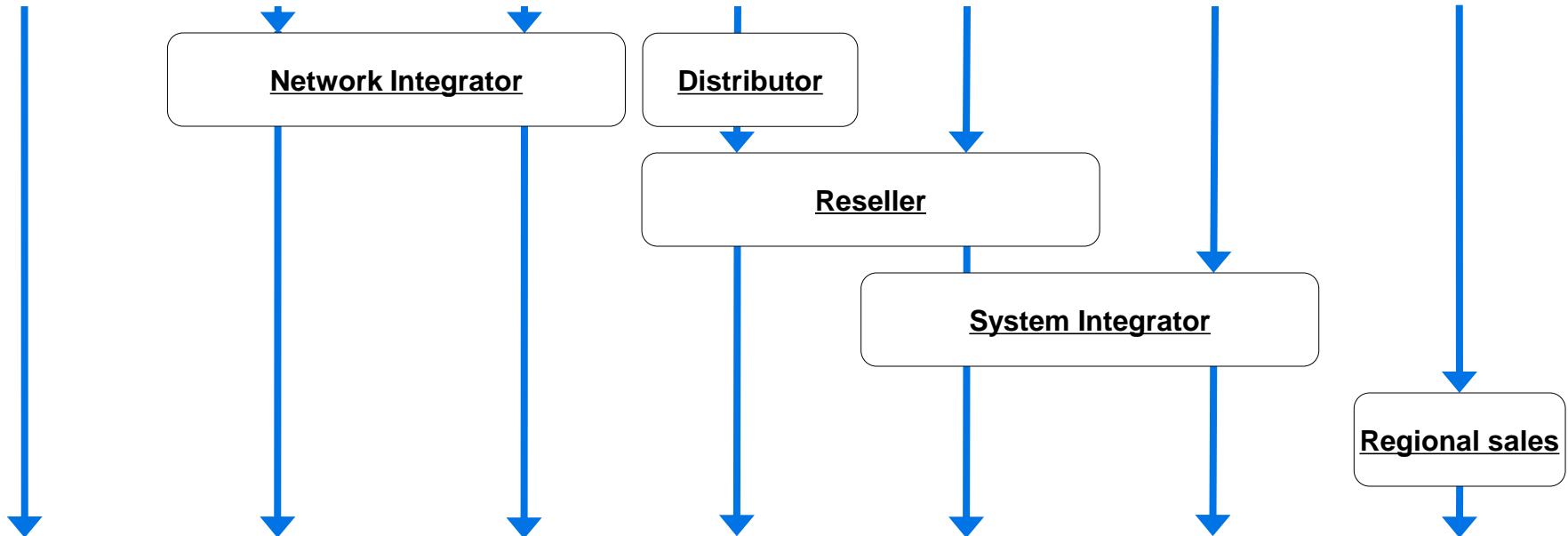
### Distributor

### Reseller

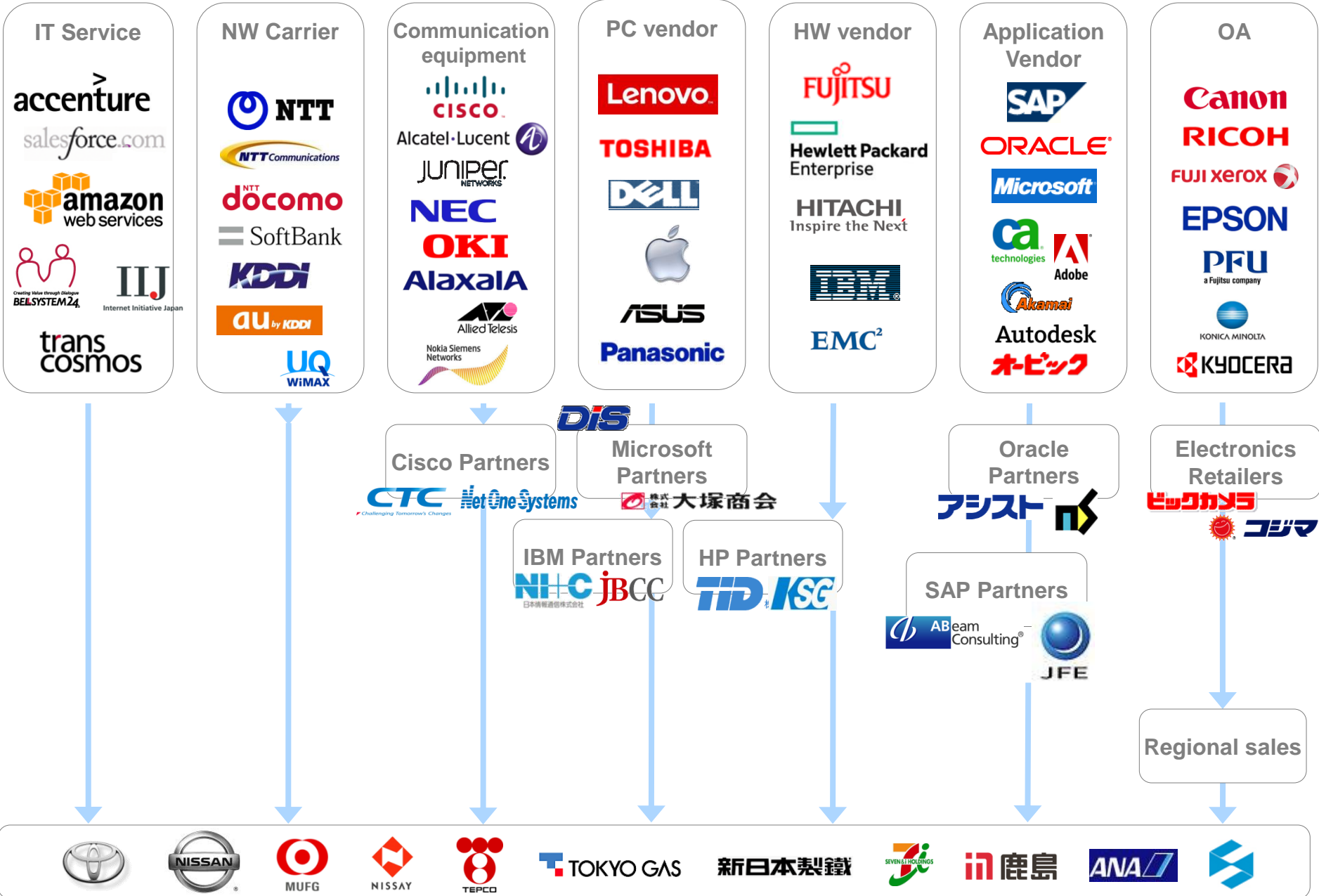
### System Integrator

### Regional sales

## User Company



# Major resellers and distributors.



# The Largest IT events in Tokyo.

- Japan IT Week  
by Reed Exhibitions Japan

**Japan IT Week**

<http://www.japan-it.jp/en/>

- ITpro EXPO  
by Nikkei BP



<http://expo.nikkeibp.co.jp/itpexpo/2016/english/>

- Interop Tokyo  
by NANO OPT media

**Interop**

<http://www.interop.jp/2016/en/>

- Watson Summit (XCITE)  
by IBM Japan

IBM **Watson** Summit

<http://ibmevent.jp/watsonsummit2016/>

- AWS Summit Tokyo  
by Amazon Web Service



<http://www.awssummit.tokyo>

- CEATEC Japan  
by CIAJ, JEITA, CSAJ

**CEATEC**  
JAPAN

<http://www.ceatec.com/2015/en/>

- Developers Summit  
by Shoeisha



<http://event.shoeisha.jp/devsumi/20160218/>

- Gartner Symposium  
by Gartner Japan



<http://gartner-em.jp/symposium2015>

- Directions  
by IDC Japan



<http://www.idcjapan.co.jp/Seminar/directions2016/>

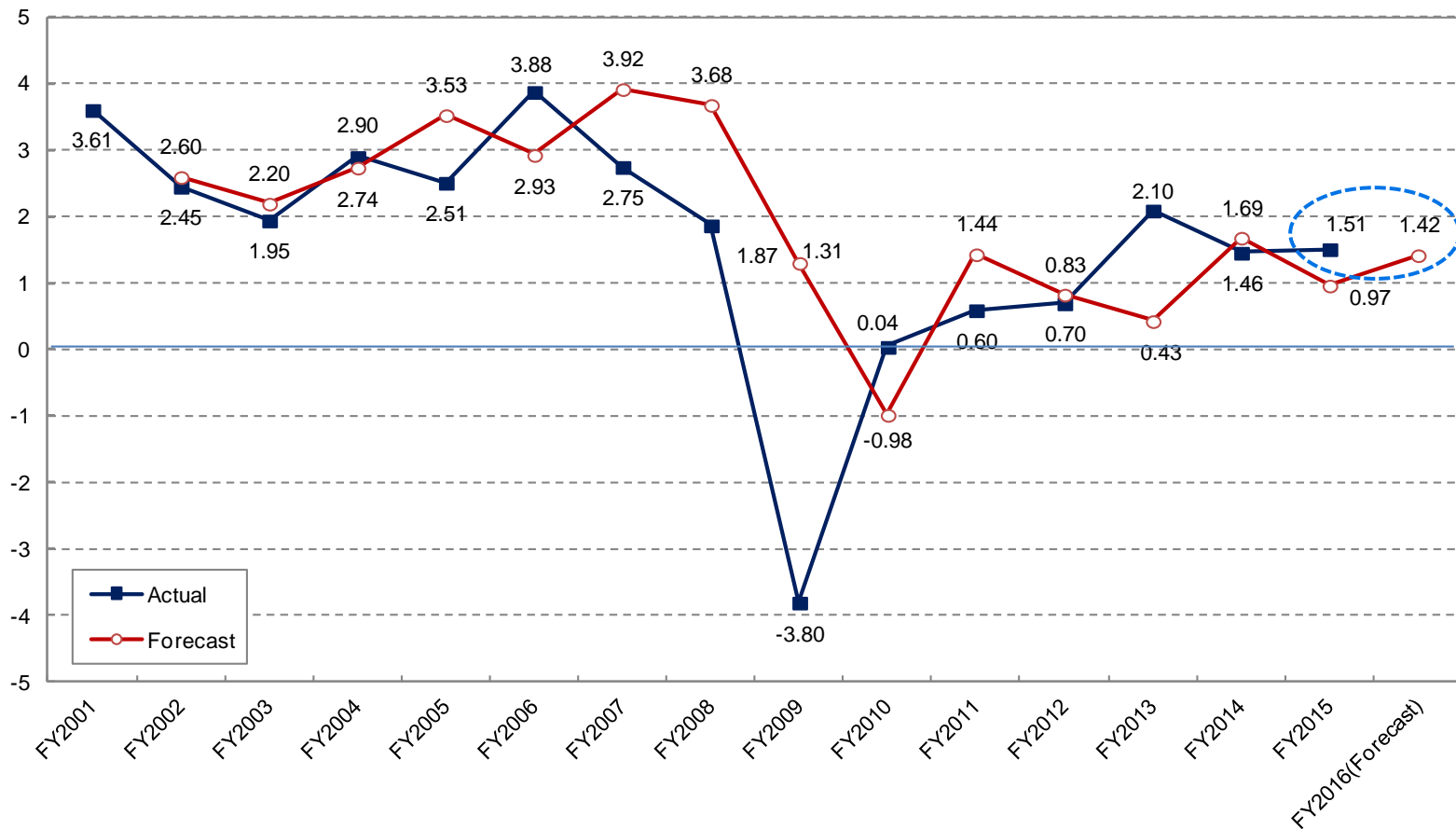


- Japanese IT market
- **IT Spending**
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# IT Investment Index\* (FY2001-FY2016)

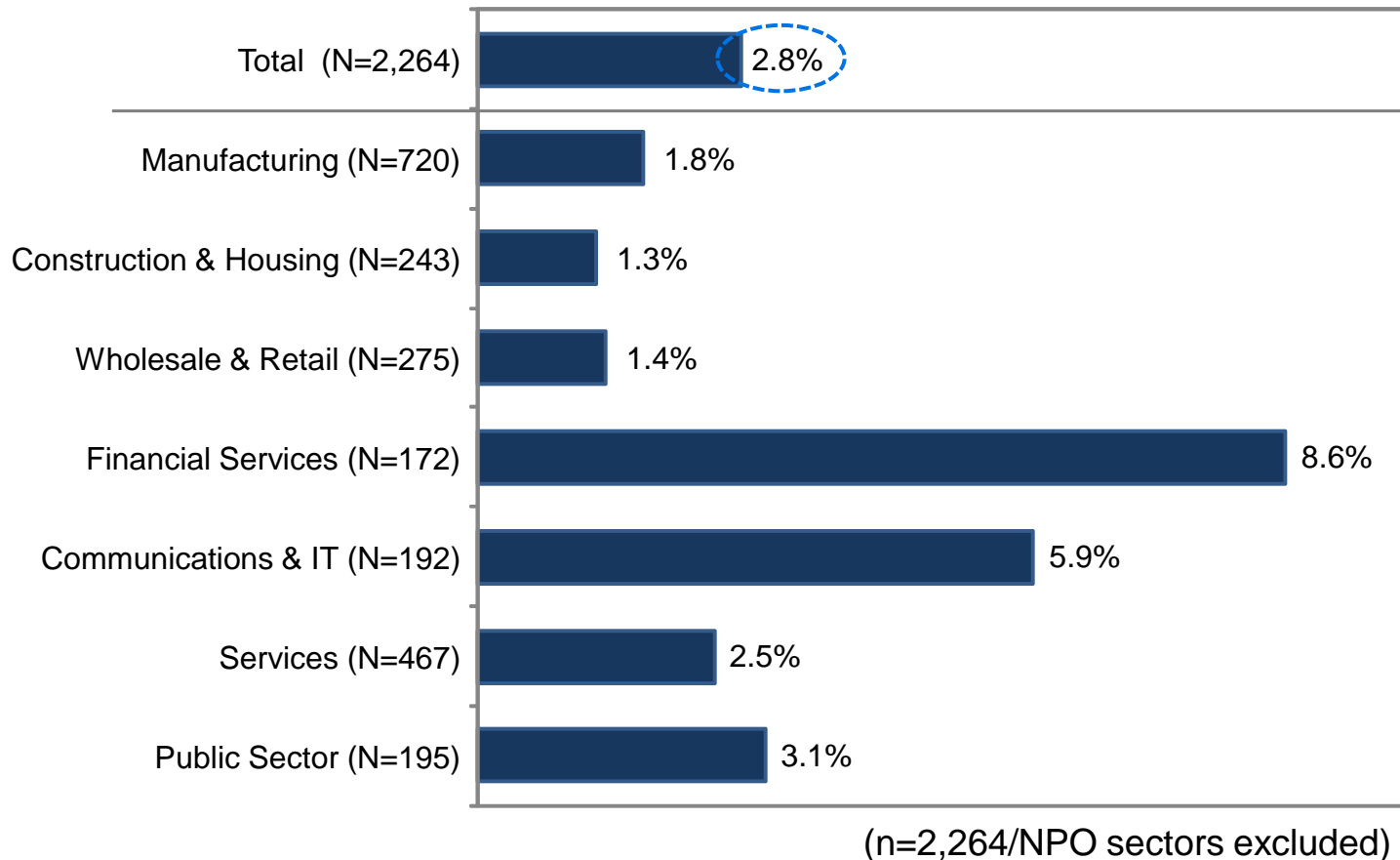
- The chart shows the secular changes of "IT investment index\*" in last 15 years.
- The index is fit for volatile market measurement just like diffusion index.

\* Sum of deemed scores divided by respondent number. ex. "Decreased >20%" = -20point "Same" = 0 point "Increased <20%" = 10 point

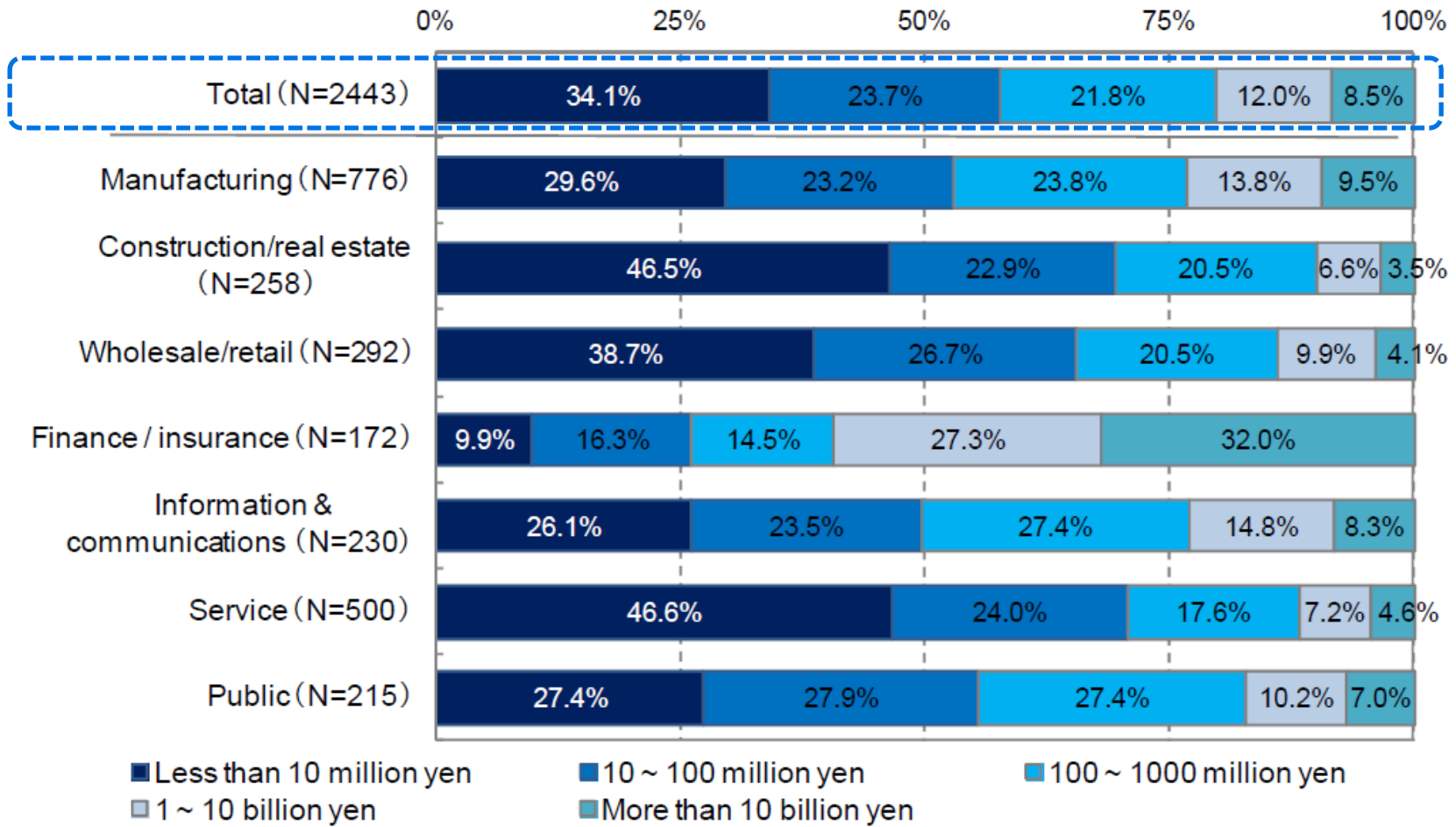


# IT budget as % of revenue (FY2015, by Industry)

- Average IT Budget against corporate revenue accounts for 2.8%.
- Industry based scores are as below.



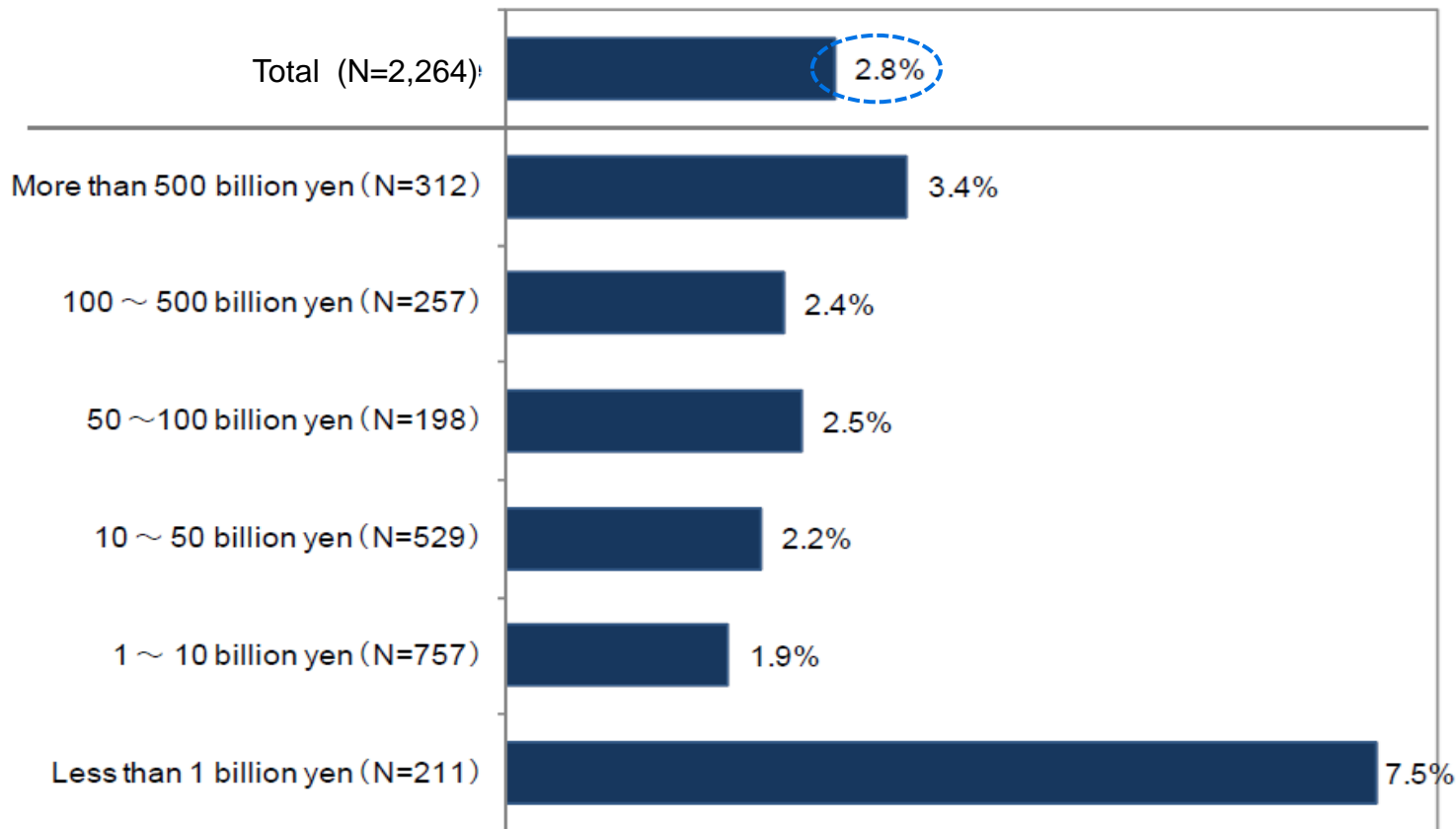
# IT budget allocation (FY2015, by industry)



(n=2,443)

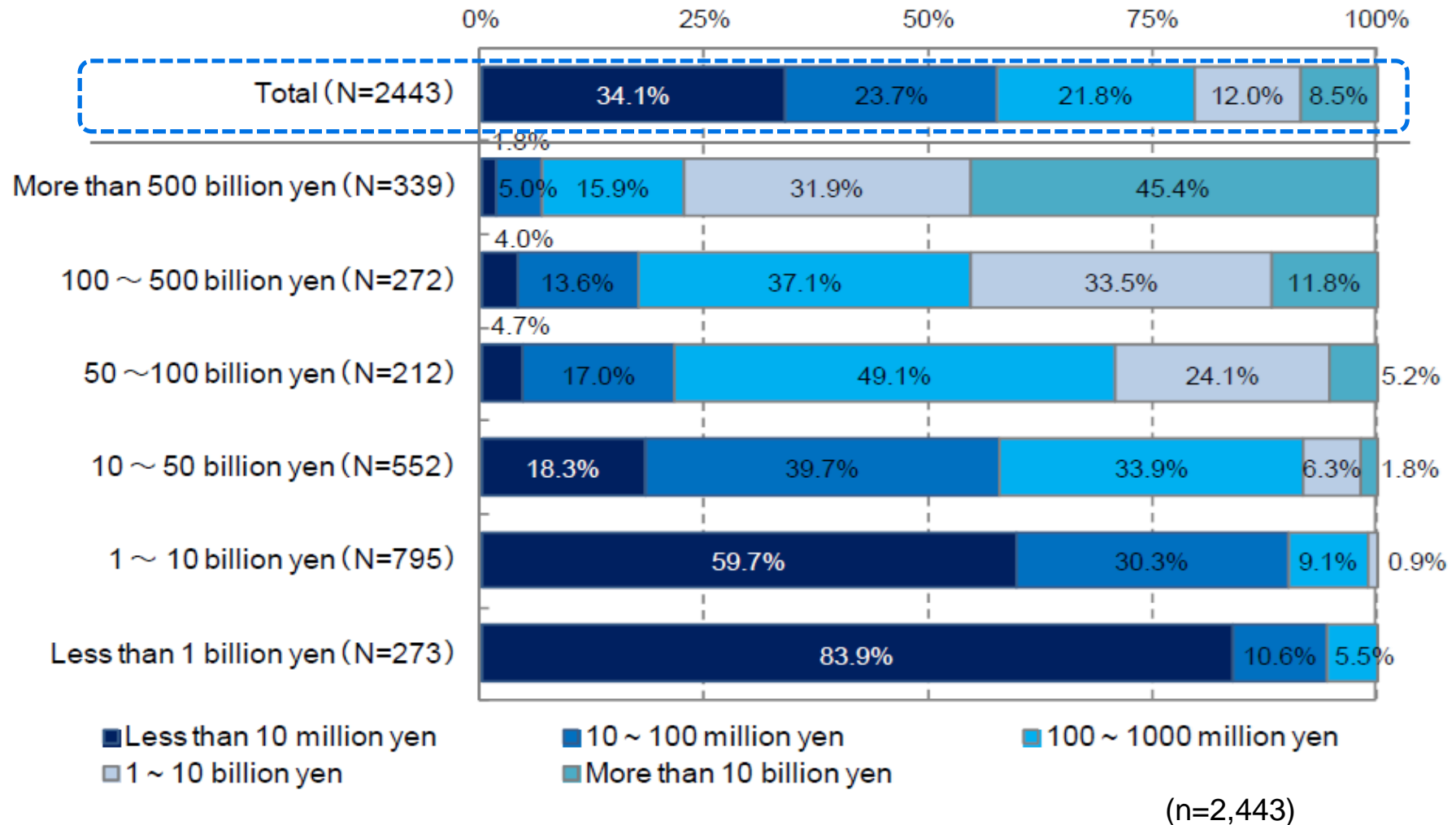
# IT budget as % of revenue (FY2015, by organization size)

- Exclude small businesses (1billion JPY<), IT spending ratios are relevant to organization size.
- Organization based scores are as below.



(n=2,264/NPO sectors excluded)

# IT budget allocation (FY2015, by organization size)



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# Key topics (FY2015 → FY2016)

- “Data security” overcomes the priority of “Data Utilization” in 2016.
- No changes in the Top5 topics.

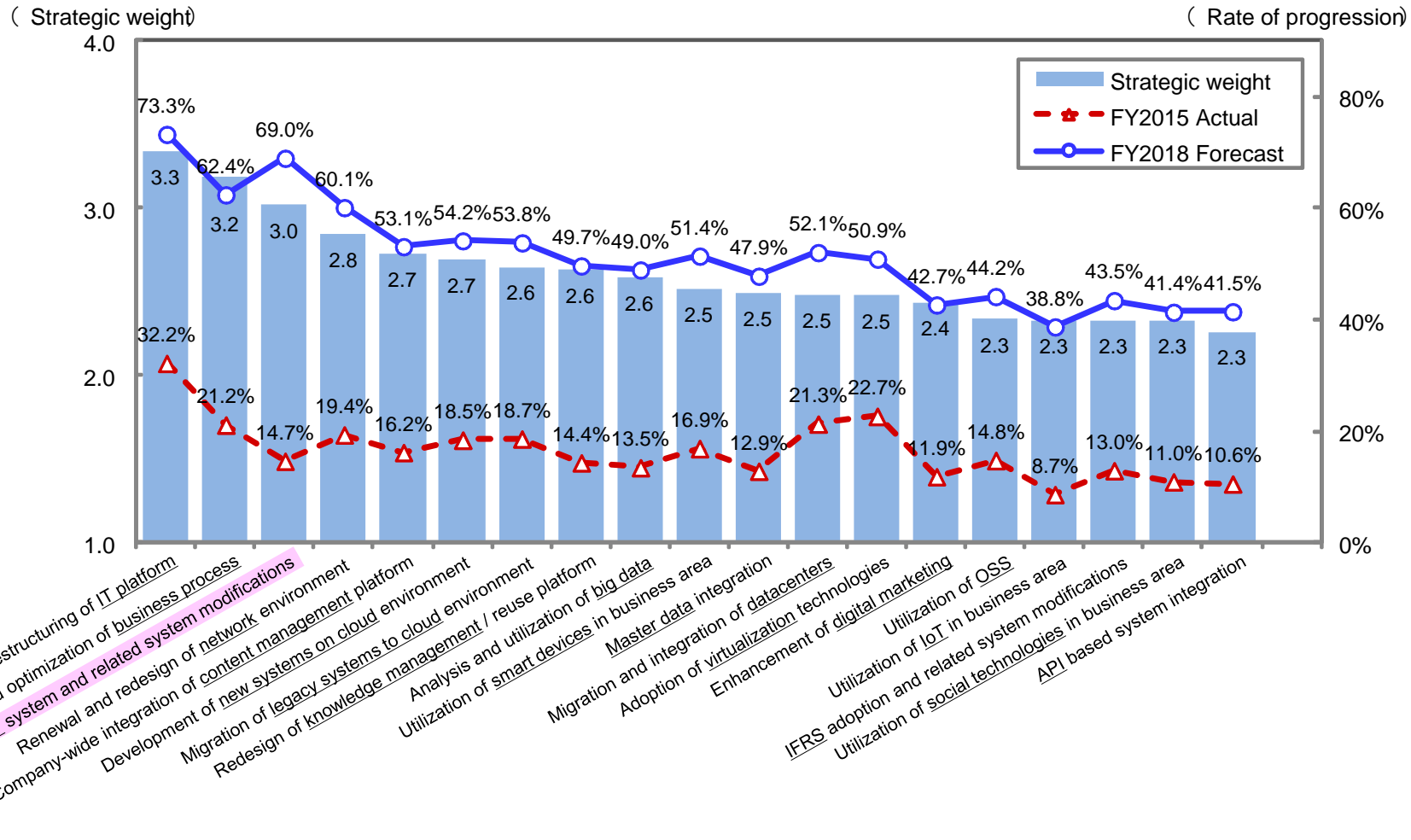


FY2015			FY2016	
1	Contribution to Top-line growth	→	1	Contribution to Top-line growth
2	Operation cost reduction	→	2	Operation cost reduction
3	Improvement of customer service quality	→	3	Improvement of customer service quality
4	IT cost reduction	→	4	IT cost reduction
5	Improvement of system performance and reliability	→	5	Improvement of system performance and reliability
6	Strategic data utilization	↘	6	Data integration of legacy systems
7	Data integration of legacy systems	↗	7	Protection of confidential data and personal information
8	Protection of confidential data and personal information	↗	8	Strategic data utilization
9	BCP & DR	↘	9	Cyber attack protection
10	Global business support	↘	10	BCP & DR
11	Speed-up of management decision makings	↘	11	Business innovation
12	Work style innovation	↘	12	Speed-up of management decision makings
13	Business innovation	↘	13	Global business support
14	Cyber attack protection	↘	14	Work style innovation
15	Support for Internal control and compliance	↘	15	R&D of cutting-edge technologies
16	Restructuring of IT organization/subsidiary	↘	16	Support for Internal control and compliance
	HR development & training of IT staff	→	17	HR development & training of IT staff
18	R&D of cutting-edge technologies	↘	18	Restructuring of IT organization/subsidiary



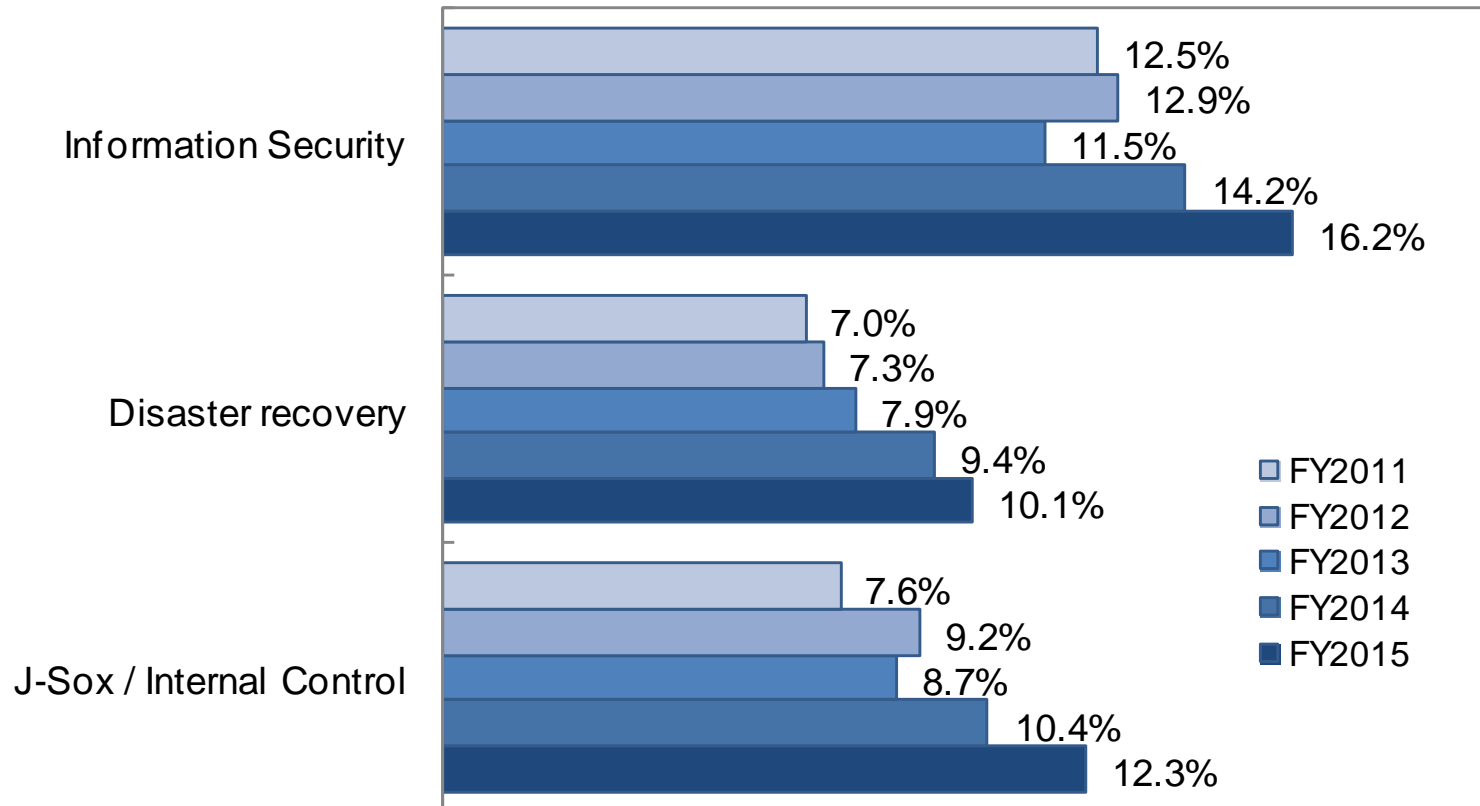
# Major Technology trends and rate of progression.

- Top trend was “Integration and restructuring of IT Platform” (6 years in a row).
- “Introduction of My number(national ID) system” scored the 3<sup>rd</sup> position.
- Cloud related topics recorded high positions.



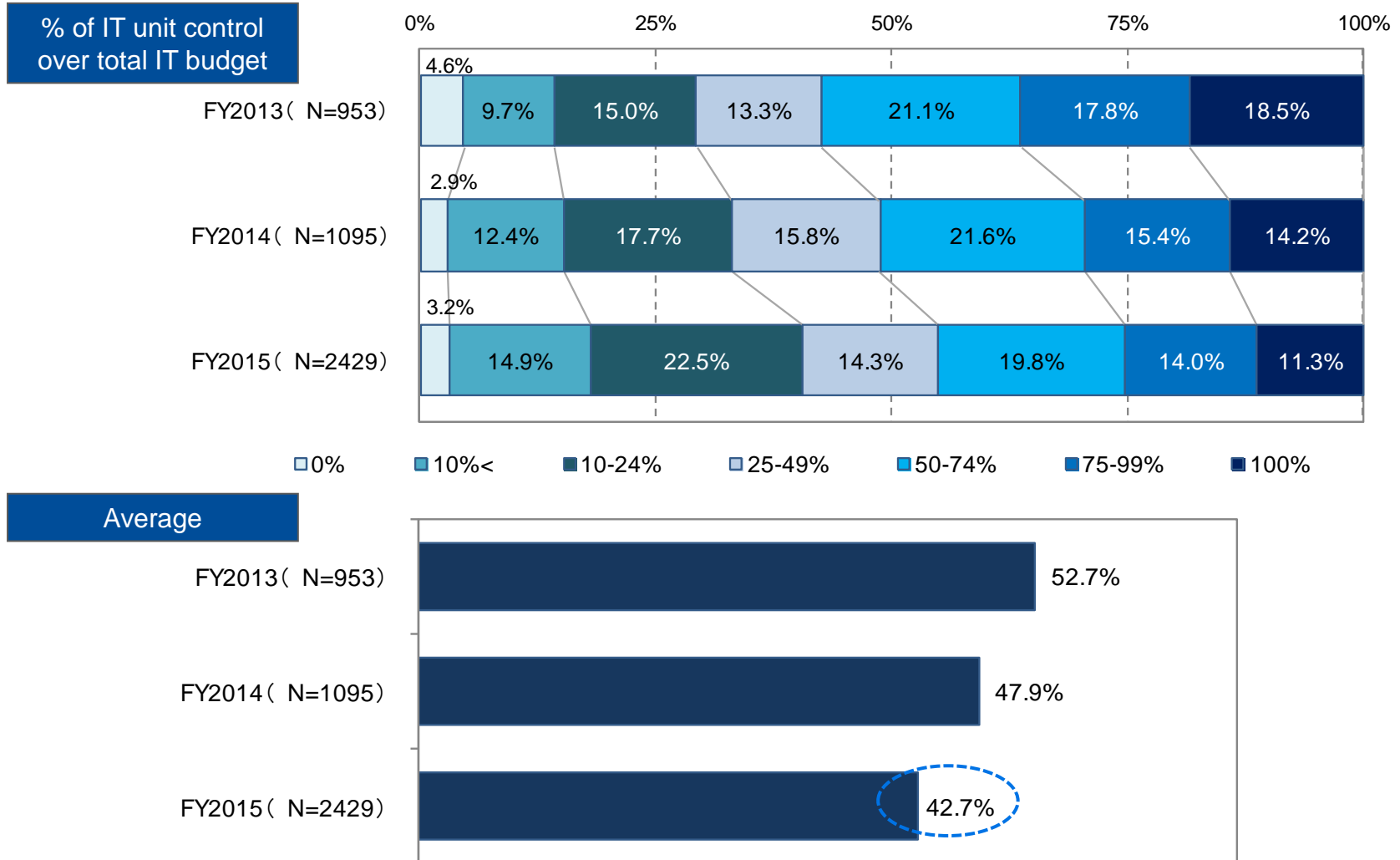
# Share of risk related expenditure against all IT Budget.

- All risk related expenditures exceeded FY2014 budget.
- “Information Security” and “Disaster Recovery “ recorded the highest in this survey.

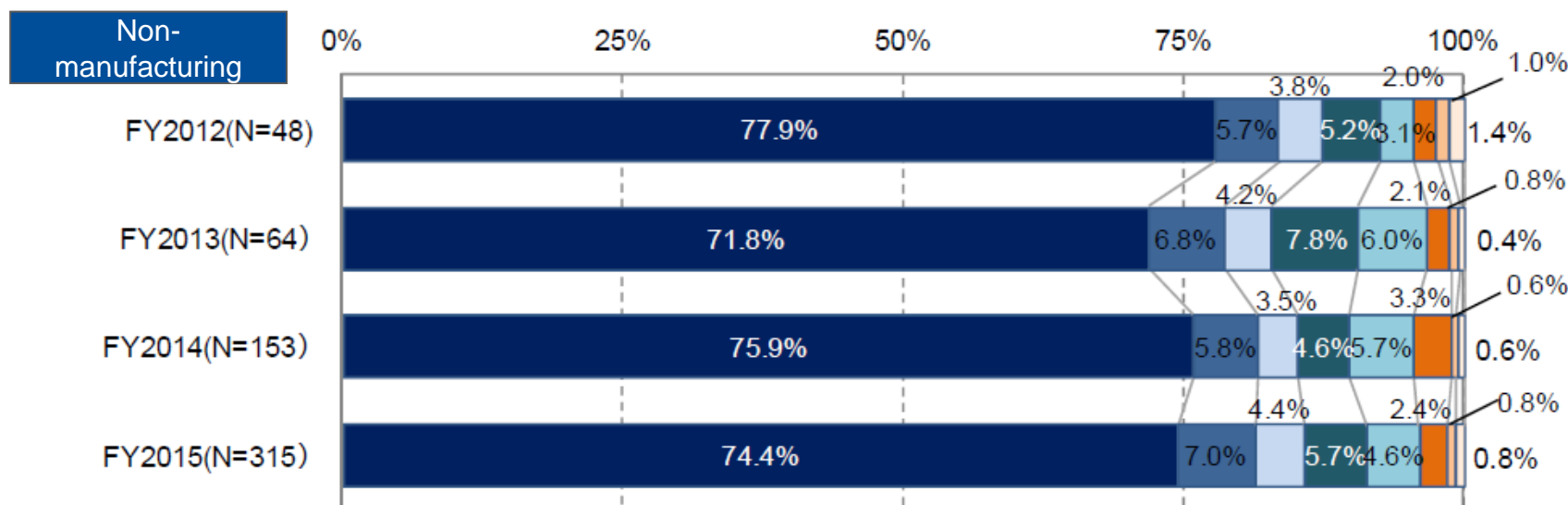
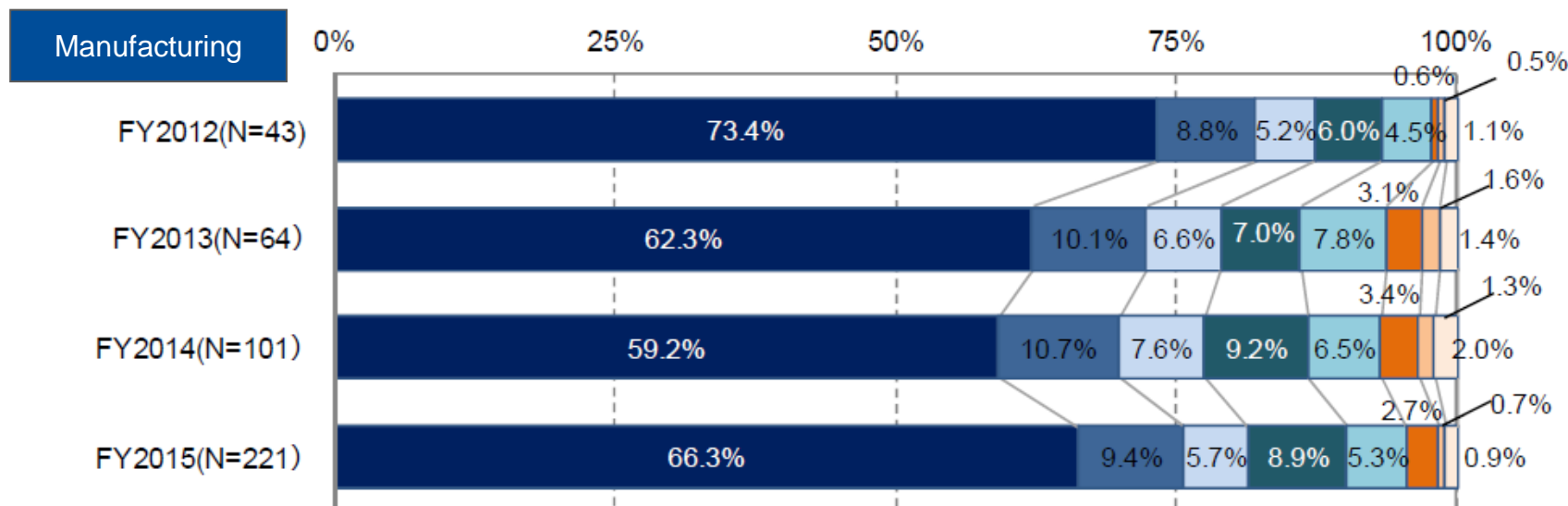


# IT Unit control over organization IT spending.

- IT Unit control over organization IT spending keeps on decreasing.
- In 2015, IT Unit controls less than 50% of total IT spending.



# Global IT budget allocation (Manufacturing/Non-manufacturing)



Japan
  North America
  Europe
  China
  ASEAN
  Other Asia
  Middle East, Africa
  Central and South America

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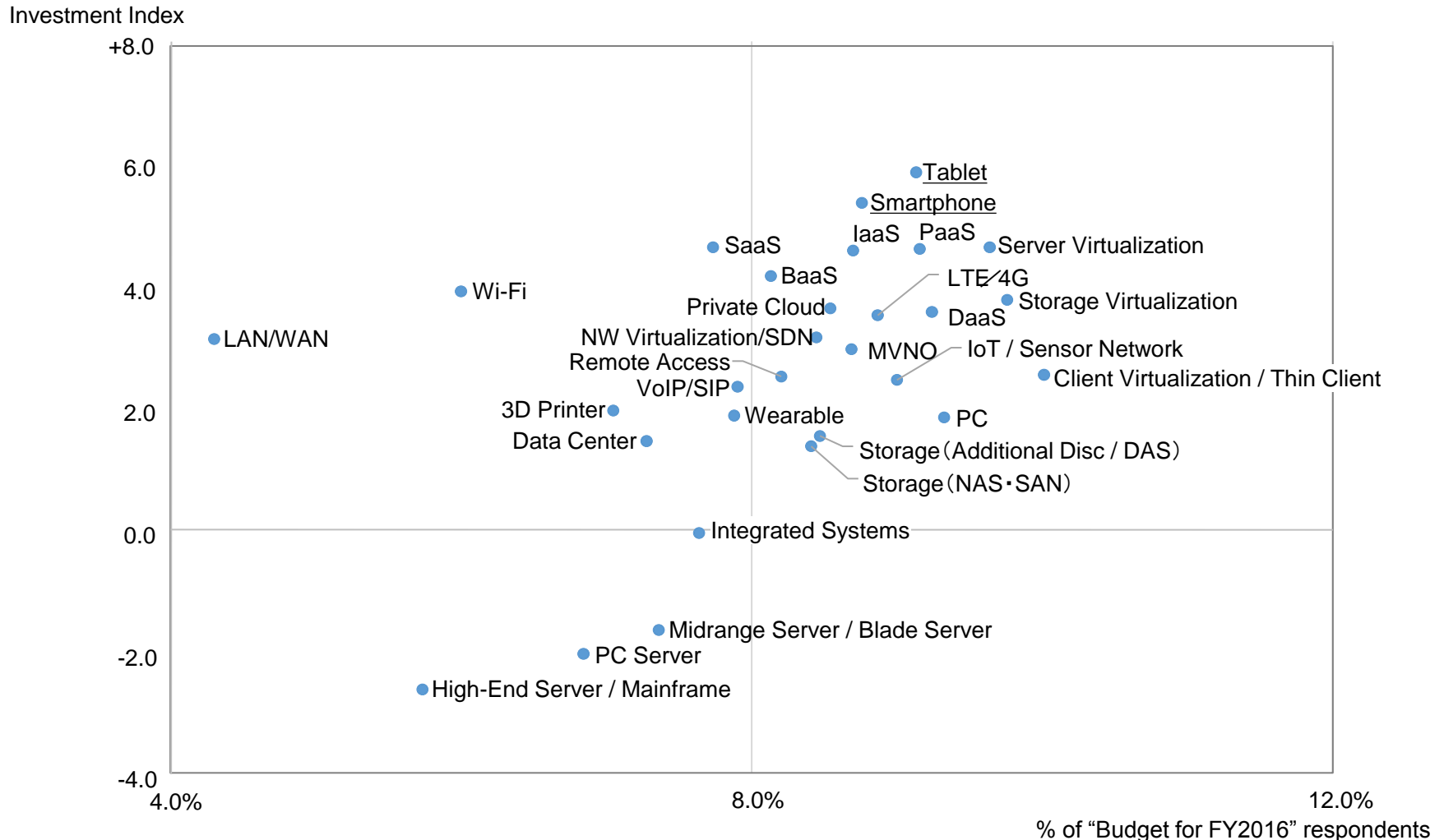
# Most focused Technology 2016 : by Industry

- Most focused IT product / service areas differ in each industry.

	Device / Infrastructure	OS / Middleware	Application	Security / IT Service
Manufacturing	<ul style="list-style-type: none"> <li>• IoT/Censor Network</li> </ul>	<ul style="list-style-type: none"> <li>• Data Search</li> <li>• Data Integration</li> </ul>	<ul style="list-style-type: none"> <li>• Unified Communication</li> </ul>	<ul style="list-style-type: none"> <li>• Targeted Attack Protection</li> </ul>
Construction & Housing	<ul style="list-style-type: none"> <li>• Smartphone</li> <li>• Tablet</li> </ul>	<ul style="list-style-type: none"> <li>• MDM/EMM</li> <li>• Mobile OS (Windows)</li> </ul>	<ul style="list-style-type: none"> <li>• BI/Data Analysis</li> <li>• Mobile Apps for Smart Device</li> </ul>	<ul style="list-style-type: none"> <li>• Vulnerability Scanner</li> </ul>
Wholesale & Retail	<ul style="list-style-type: none"> <li>• LTE/4G</li> <li>• MVNO</li> </ul>	<ul style="list-style-type: none"> <li>• Hadoop</li> <li>• Mobile OS (Windows)</li> </ul>	<ul style="list-style-type: none"> <li>• Video/Web conferencing</li> <li>• Self-Service/Workflow</li> </ul>	<ul style="list-style-type: none"> <li>• Vulnerability Scanner</li> </ul>
Financial Services	<ul style="list-style-type: none"> <li>• DaaS</li> <li>• Private Cloud</li> </ul>	<ul style="list-style-type: none"> <li>• Data Search</li> <li>• Data Integration</li> </ul>	<ul style="list-style-type: none"> <li>• Enterprise Management</li> </ul>	<ul style="list-style-type: none"> <li>• Network Quarantine</li> <li>• Targeted Attack Protection</li> </ul>
Communications & IT	<ul style="list-style-type: none"> <li>• Server Virtualization</li> <li>• IoT/Censor Network</li> </ul>	<ul style="list-style-type: none"> <li>• Software Asset Management</li> <li>• Data Integration</li> </ul>	<ul style="list-style-type: none"> <li>• Mobile Apps for Smart Device</li> </ul>	<ul style="list-style-type: none"> <li>• DLP</li> </ul>
Services	<ul style="list-style-type: none"> <li>• Storage Virtualization</li> <li>• Tablet</li> </ul>	<ul style="list-style-type: none"> <li>• Software Asset Management</li> </ul>	<ul style="list-style-type: none"> <li>• Unified Communication</li> </ul>	<ul style="list-style-type: none"> <li>• Vulnerability Scanner</li> </ul>
Public Sector	<ul style="list-style-type: none"> <li>• Client PC</li> <li>• Server Virtualization</li> </ul>	—	—	<ul style="list-style-type: none"> <li>• Vulnerability Scanner</li> <li>• Targeted Attack Protection</li> </ul>

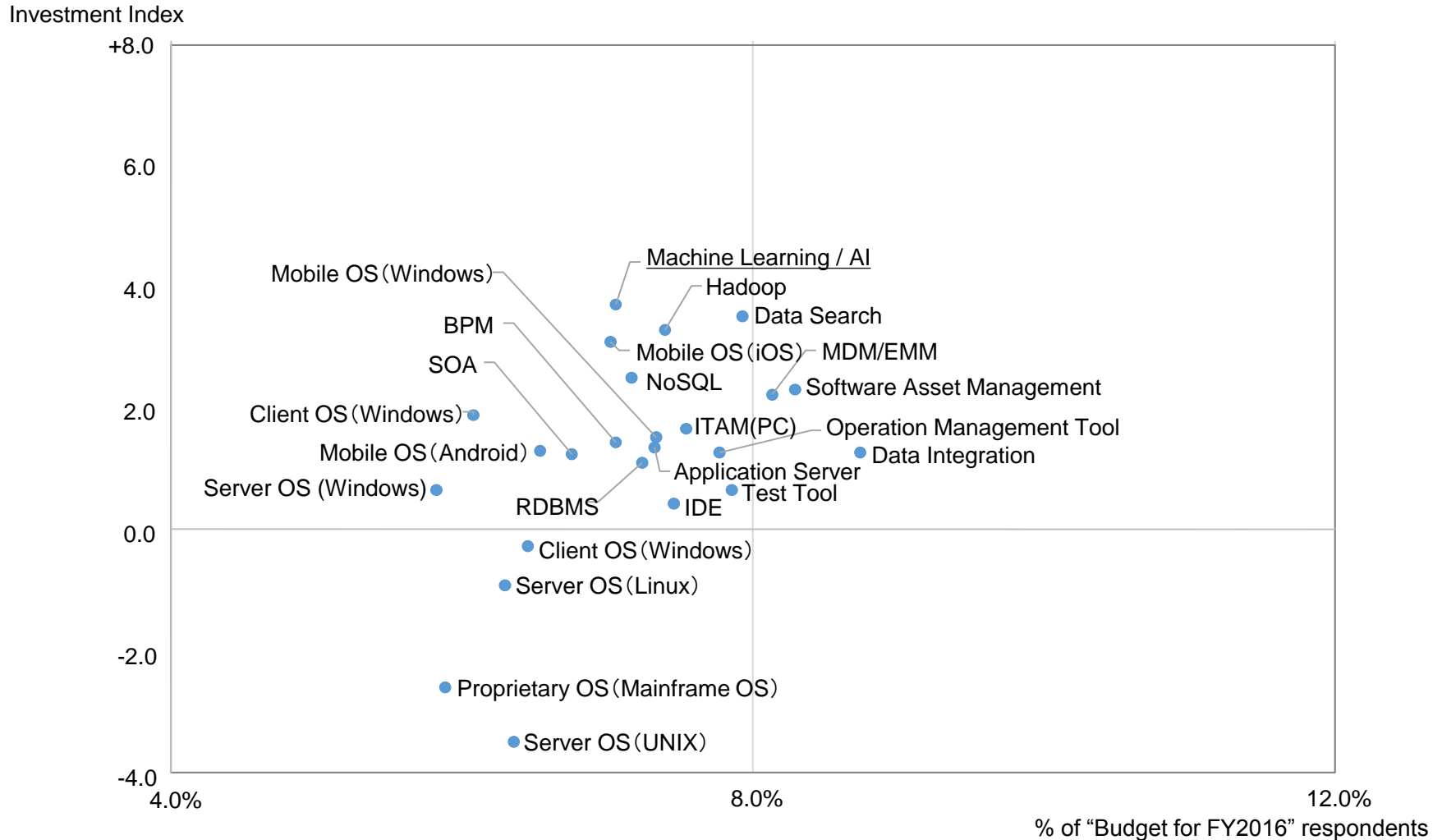
# Most focused Technology 2016 : IT platform and Devices

- “Tablet” and “Smartphone” keep high growth.
- All “Servers”(High-End/Midrange/PC) forecasts are in low positions. While cloud related investment (IaaS/ PaaS/SaaS/ DaaS/Private ) are in growth trends.



# Most focused Technology 2016 : OS and Middleware

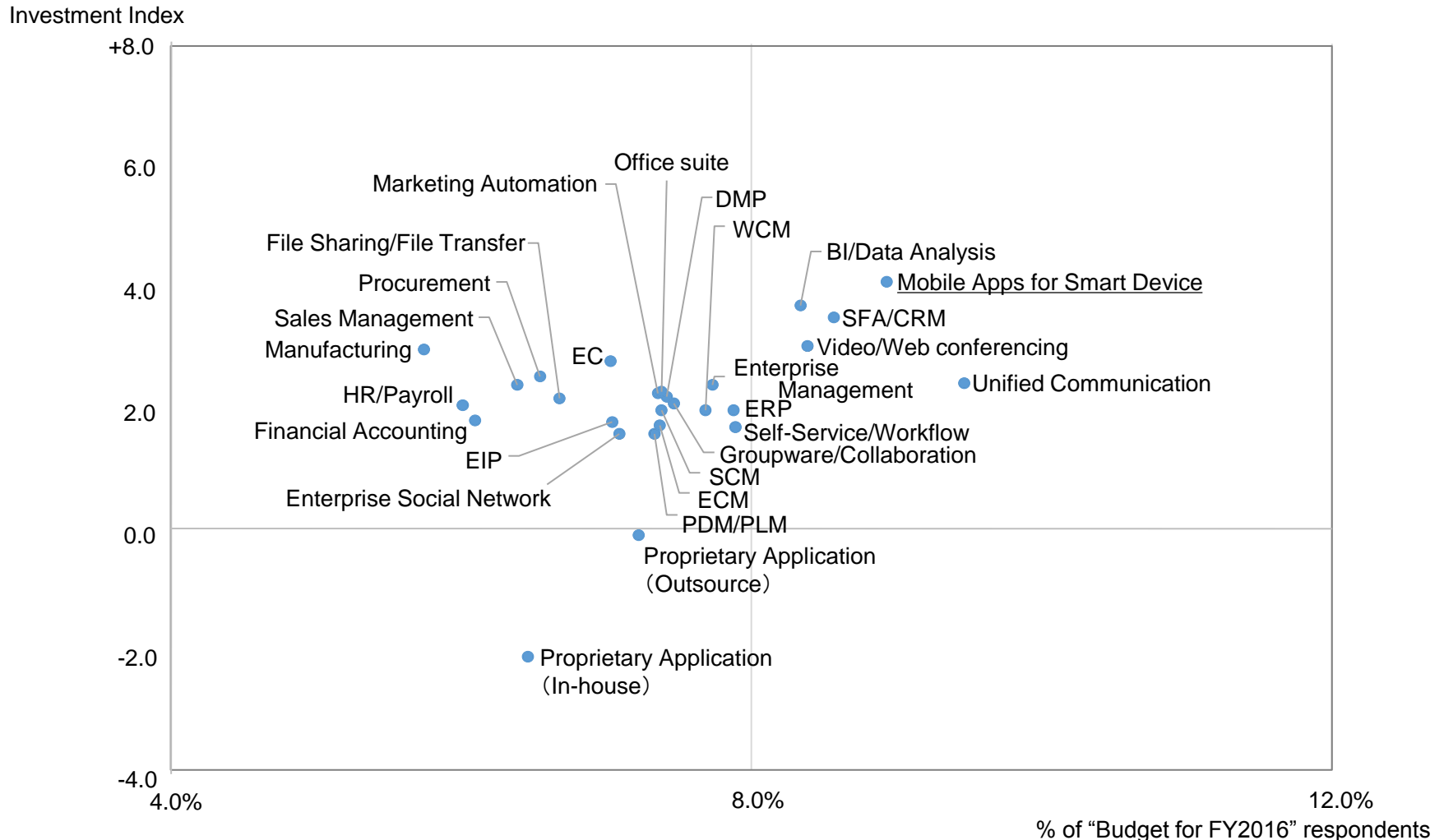
- “Data Integration” “Software Asset Management” “MDM/EMM” are to collect new prospects in FY2016.
- Investment in “Machine Learning / AI” “Hadoop” may growth in FY2016.





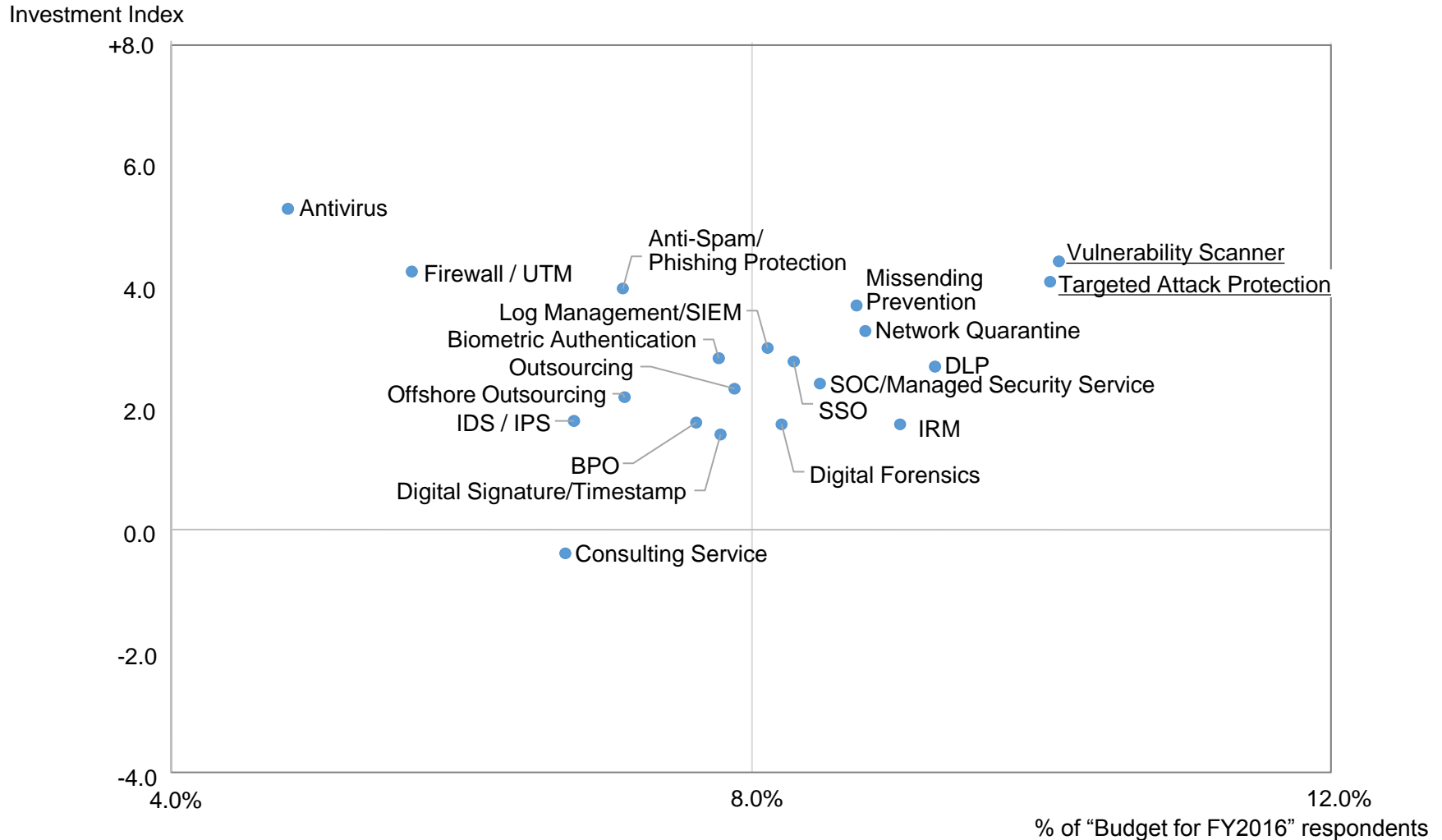
# Most focused Technology 2016 : Applications

- Little investment for SoR systems and “Proprietary Applications”.
- “Mobile Apps for Smart Device” draws attention. Real time communications (“Unified communication” “Video/Web conferencing” ) are at high growth positions as well.



# Most focused Technology 2016 : Security and Services

- “Vulnerability Scanner” and “Targeted Attack Protection” are at the highest positions among all the products.
- Limited growth but wide range needs for Outsourcing services.



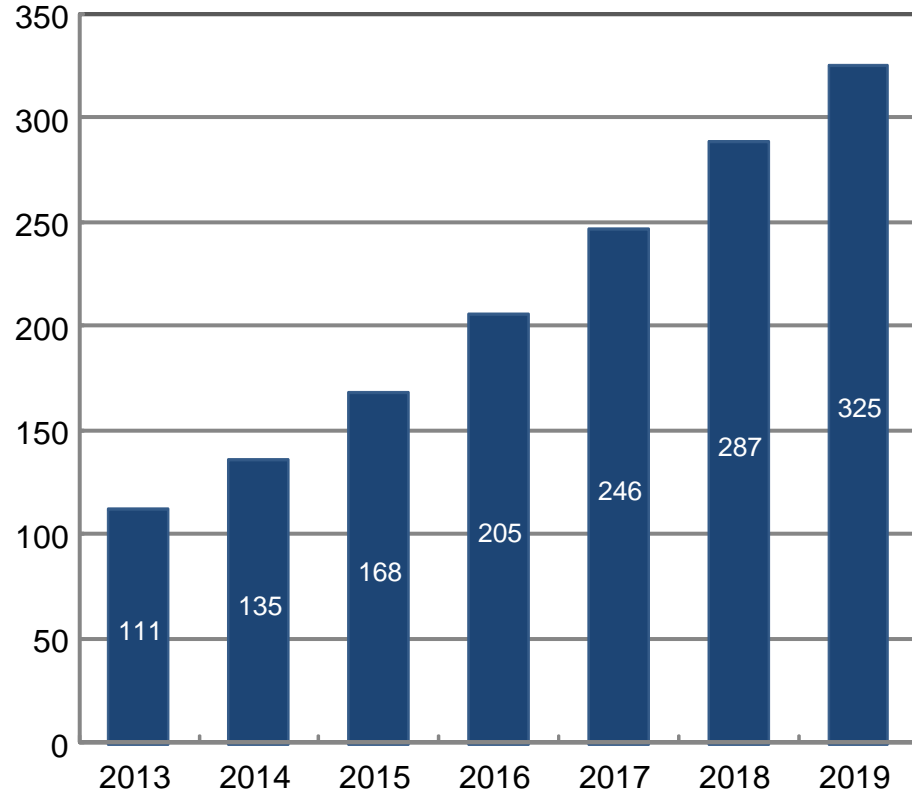
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# Cloud (IaaS/PaaS/SaaS)

- IaaS/PaaS market grows at CAGR19.2%, Top3: AWS, NTTCom, Fujitsu.
- SaaS market grows at CAGR12.5%, Top3: SFDC, Softbank, Experian.
- DaaS market t grows at CAGR15.9%, Tops3: Fujitsu, NTT Data, NSSOL.

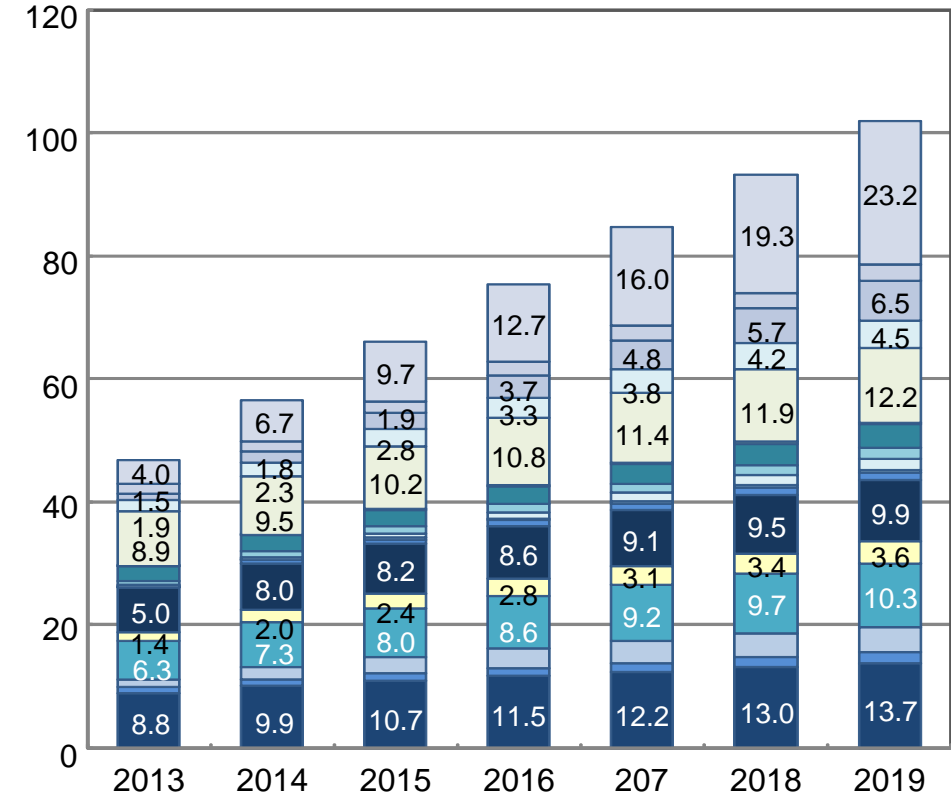
## Japanese IaaS & PaaS market forecasts.

(Unit=billion JPY)



## Japanese enterprise SaaS market forecasts.

(Unit=billion JPY)

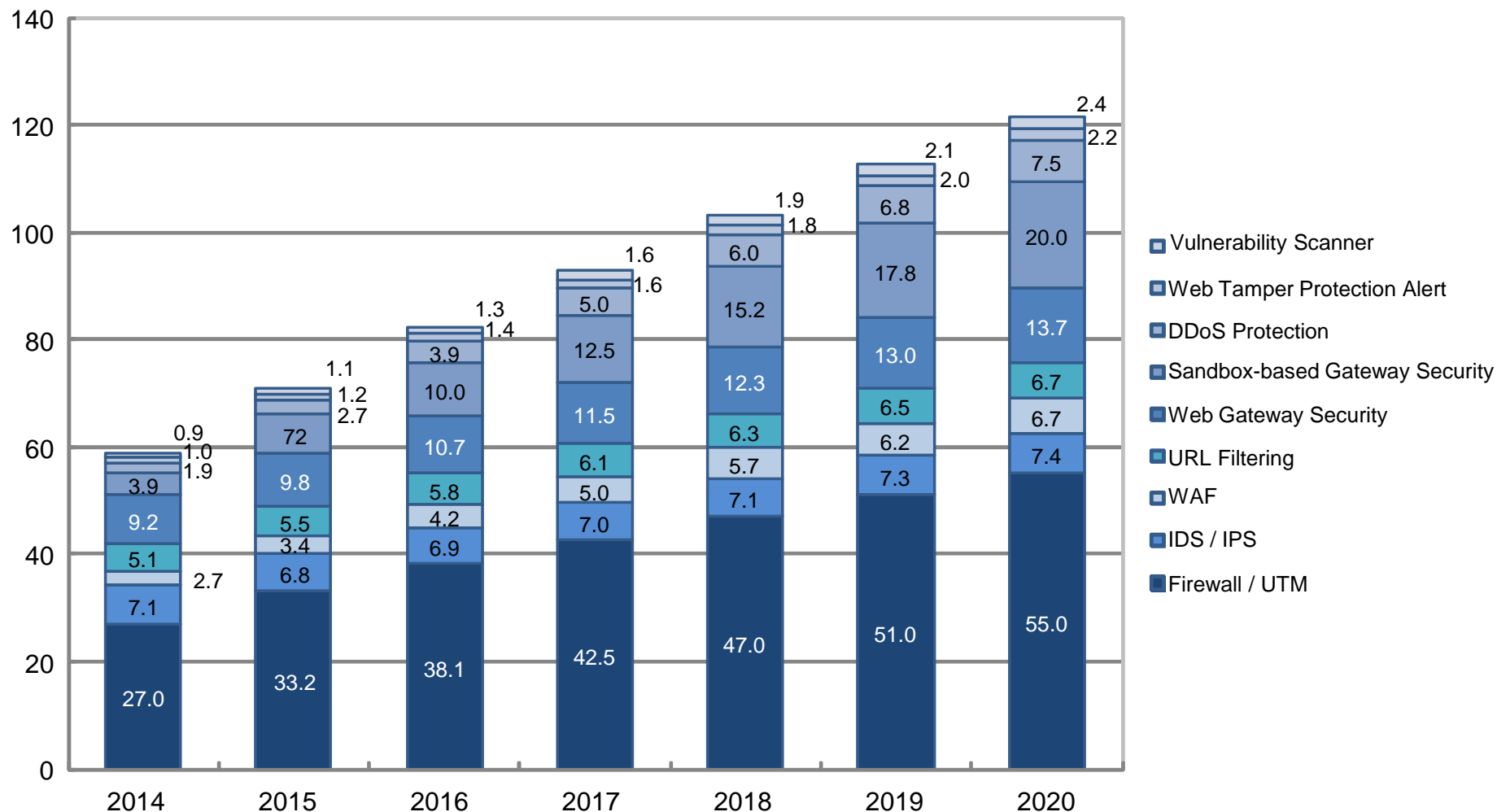


# Cyber Security

- Cyber Security market grows at CAGR11.4%.
- Sandbox-based Gateway Security (22.7%) and DDoS Protection (22.4%) grows fastest.

(Unit=billion JPY)

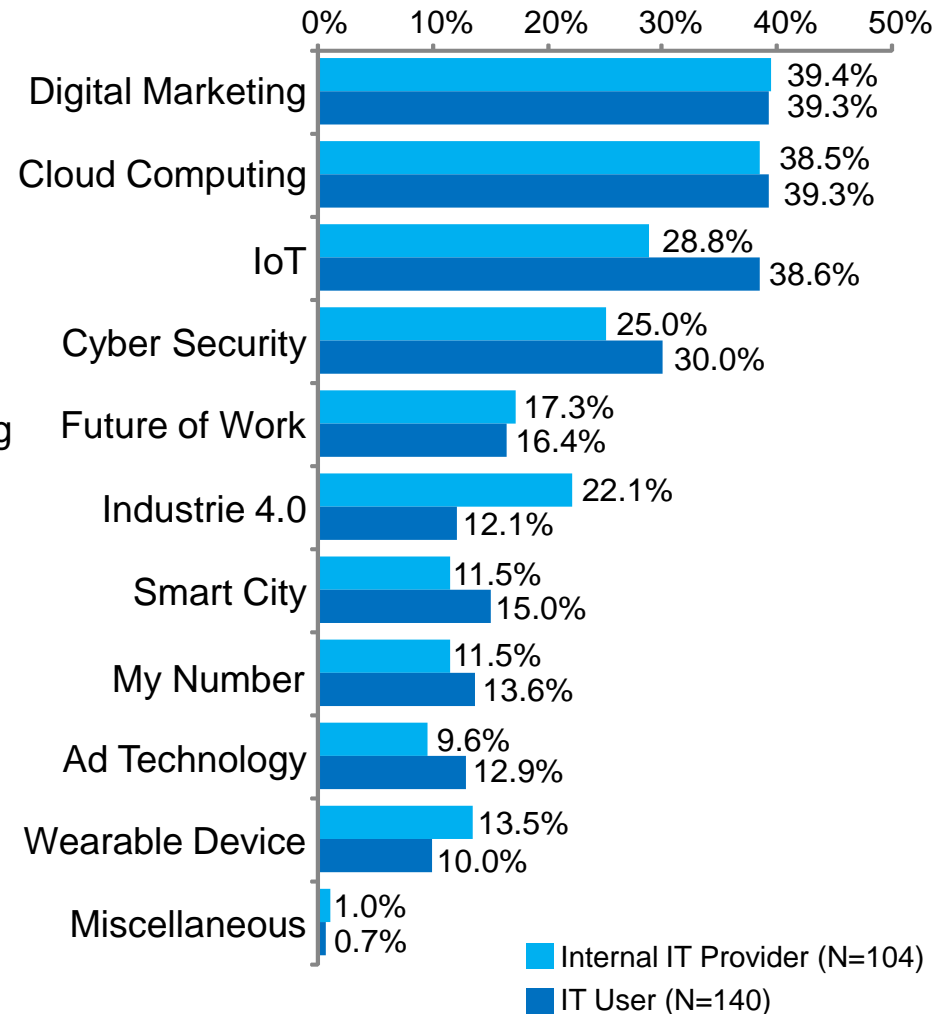
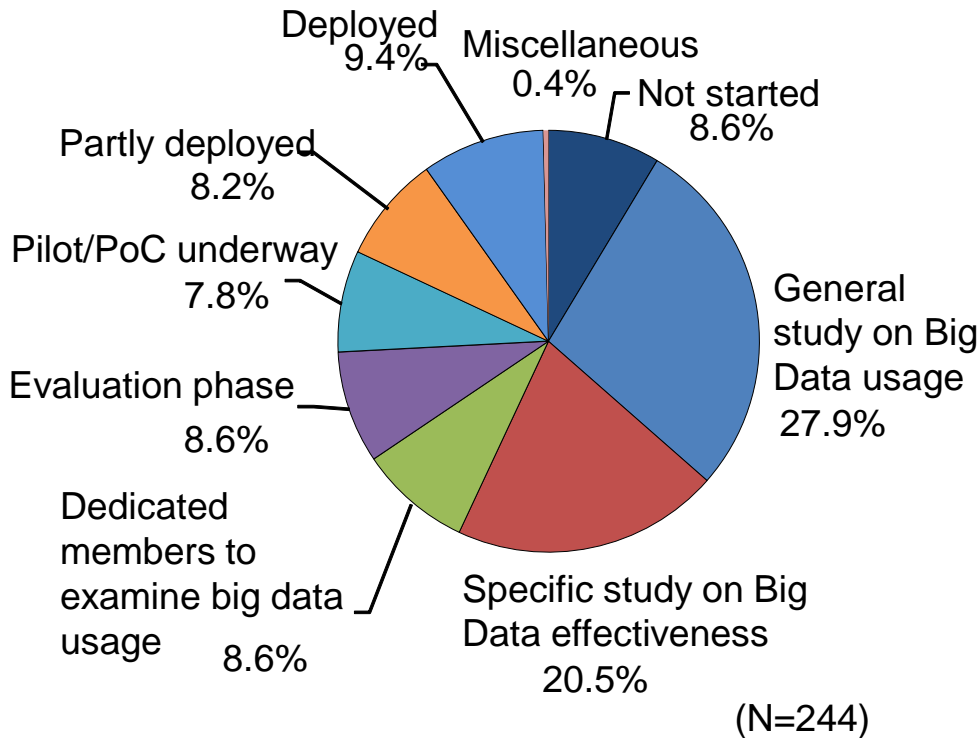
Japanese Cyber Security market forecasts.



# Big Data Analytics – User survey result

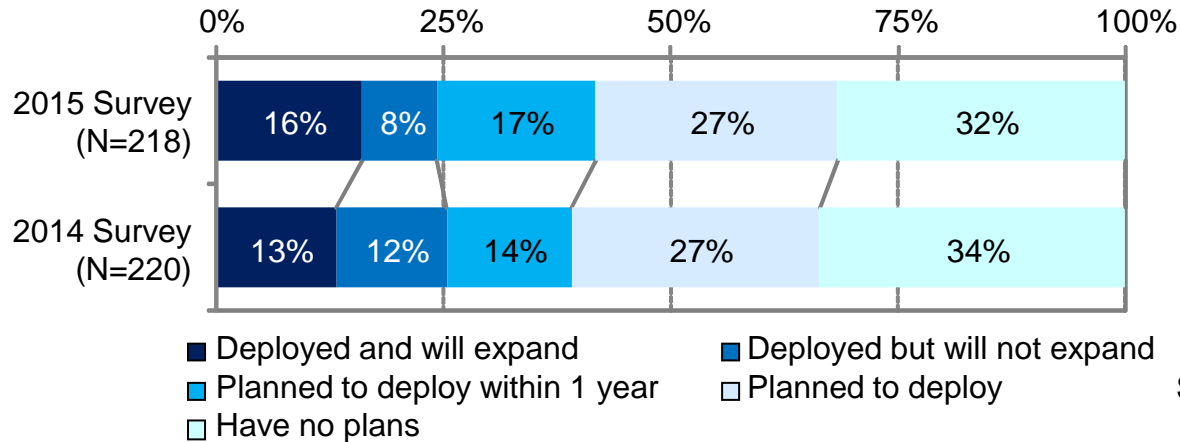
State of Big Data Analytics deployments

Recalled IT keywords related to Big Data Analytics

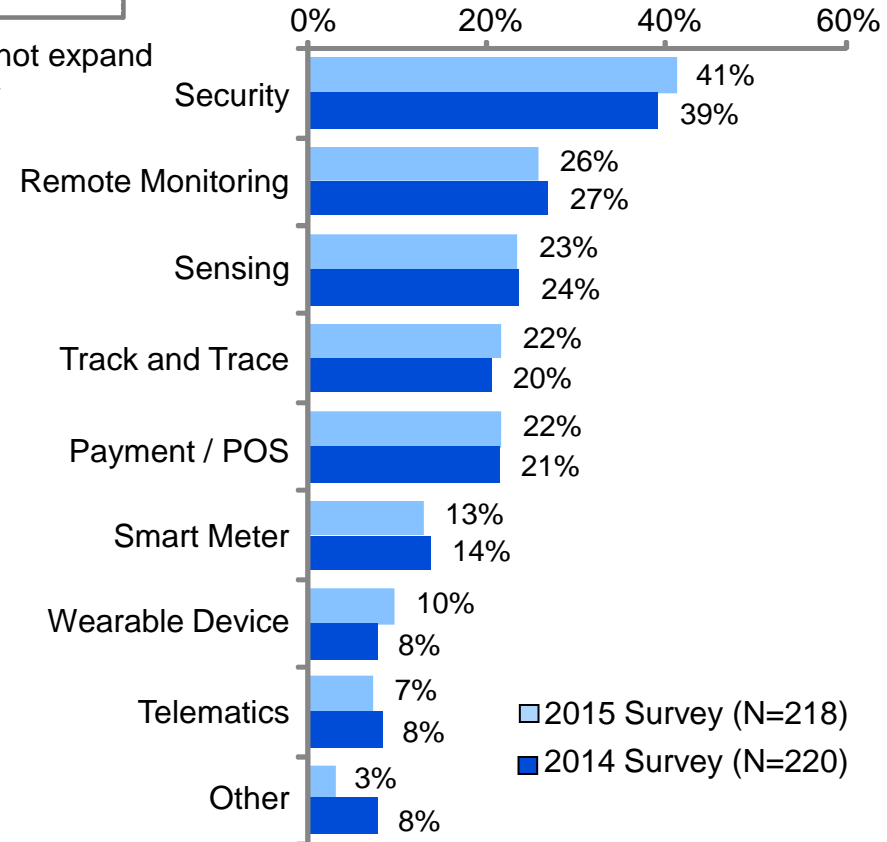


# IoT – User survey result

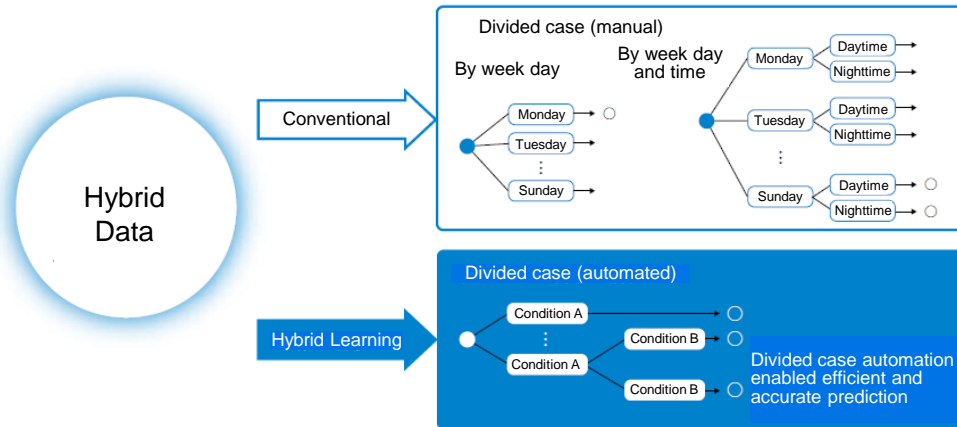
State of IoT deployments



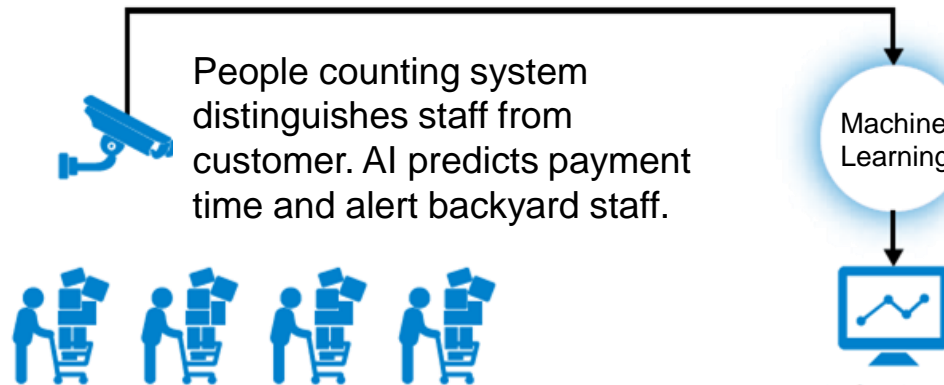
Areas of IoT deployment



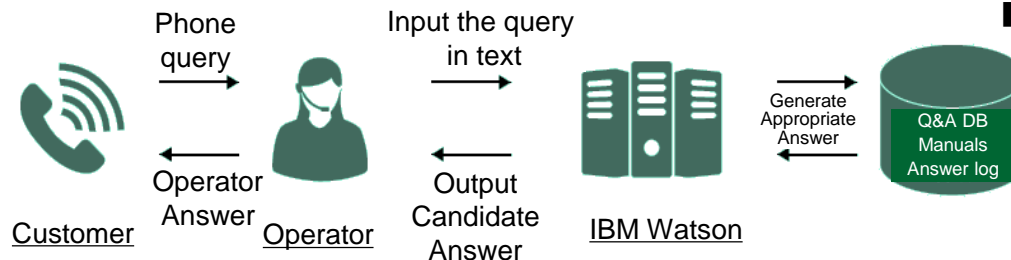
# AI – Vendor show case



- **Demand Forecast**  
Asahi Beer adopted NEC Hybrid Learning technology and had reduced error rate within 1%.



- **In-store congestion forecast**  
Trial Company is trying to minimize customer waiting time at shopping.



- **Relation Prediction**  
Sumitomo Mitsui Bank pilot PJ achieved 80% correctness for 160 customer queries.



## B2B2C Service platforms – fastest growing area

**“Money Forward”** is a personal money account aggregation platform started in December 2012. It connects bank account, credit card account and shopping receipt scan data via API links. Now it has 3.5 million users and OEM the service platform for various banks.



Money Forward, Inc.  
<https://moneyforward.com/>

**“airCloset”** is a fashion rental platform started in December 2014. The service had grown up to 200 brands and 75,000 users in 15 months. Funded 1 billion JPY from laundry shop FC, warehouse company and credit card VC in 2016.



AirCloset, Inc.  
<http://corp.air-closet.com/>

**“Soracom”** is an AWS based IoT platform started in September 2015. The service (SIM card and APIs dashboard) has signed over 2,000 companies and raised 2.4 billion JPY for US (World Innovation Lab, Infinity Venture Partners) and more for ASEAN (Mitsui Corp, Pavilion Capital).



SORACOM, Inc.  
<https://soracom.jp/>

## B2C- New UI, New UX

**“Live shell”** is an online streaming appliance released in 2012. The mix-up of consumer electronics(embedded system) and online service enables gradual UI and service improvement. The product of 11 employee company is sold in 21countries.



CEREVO, Inc.  
<https://www.cerevo.com>

**“Moverio”** is a see through type smart glasses released in Nov 2011. User can download apps(entertainment, games, business etc.) from Apps Market. It can be used as a drone monitor, video player and educational tool.



**EPSON**

Seiko Epson, Inc.  
[www.epson.com/moverio/](http://www.epson.com/moverio/)

**“Doodle Zoo”** is an interactive drawing animation service for museum and SCs. Original program (anyscan) was developed as “Rakugaki Aquarium” in 2012 with AD agency Dentsu.



COCONOE, Inc.  
<https://9ye.jp/>  
<http://doodlezoo.jp/>



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