

Government

#### Ministry of Internal Affairs and Communications

#### 2014 Communications Usage Trend Survey Form <<For Households>>

This statistics survey has been conducted in accordance with the Statistics Act. The privacy of information collected in this survey will be surely protected. Your accurate and complete answers are appreciated.

	Please note the following before completing the survey.
	1 This survey asks about the communication devices and services you and your household regularly use and when you use them. (Please confirm your name with the address label on the left.) Anyone in your household may complete the survey form.
	2 Words defined in the Glossary are denoted with asterisks (*). Please refer to the Glossary as needed
	3 Please give answers reflecting the situation in your household on December 31, 2014.
	4 Submit the completed survey to:
	* The survey form may also be obtained and submitted online.
If you wish, please provide a telephone number below so that we may contact you if we have further questions about your survey answers.	For detailed information, please look at "Request for cooperation" enclosed herein.
	5 If you have any questions, please contact the survey firm at:
	6 The Ministry of Internal Affairs and Communications has contracted the survey firm above to conduct this survey.

Household section: Please give answers reflecting the situation for your entire household.

Q1 Concerning ownership and usage of communication devices

- Note: Do not count company-provided devices or devices that you own but have not used even once in the past year.
- (1) This question asks about your household's ownership of devices with communication functions.

Does your household own any of the devices 1 through 10 listed below? Please <u>circle all devices that your household owns</u>. <u>For devices 3 through 11, please indicate the number of devices in your household</u>.

other monitor (Wii, PlayStation, etc.) (how many?) ernet-enabled home game consoles with built-in displays intendoDS, PSP, etc.) (how many?)
ernet-enabled portable music players (iPod, etc.) w many? )
her Internet-enabled home appliances (information appliances*) w many?)
ł

#### (2) This question asks about your household's ownership of devices that receive digital TV broadcasts\*.

Does your household own any of the devices 1 through 6 listed below? Please <u>indicate the number of devices you own</u>. If you do not own such a device, please **mark "None" with a circle**. For devices 1 through 3, please <u>indicate the number of Internet-connected devices you ov</u> Note: For "No. of Internet-connected devices," count all devices that are directly connected to the Internet with either a LAN cable or a Wi-Fi connection.

	No. of owned devices	No. of Internet-connected devices
1. TVs (with digital broadcast support)	None · (devices)	None • (devices)
2. DVD / Blu-Ray disk recorders (with digital broadcast support)	None • (devices)	None • (devices)
3. Digital broadcast receiver tuners* (excluding types 4 and 5 below)	None • (devices)	None • (devices)
4. Cable TV tuners	None • (devices)	
5. IPTV* (Hikari TV, etc.) tuners	None · (devices)	
6. One-segment broadcast receiver tuners	None • (devices)	
7. Other	None • (devices)	

(3) Does your household use a home Wi-Fi network\*? Please circle the one best answer.

Note: A Wi-Fi network includes tethering of smartphones and mobile Wi-Fi terminals.

Use Wi-Fi
 Do not use Wi-Fi, and have no plans to install Wi-Fi
 Do not use Wi-Fi, but plan to install Wi-Fi

#### Q2 Concerning general Internet usage

(1) Has anyone in your household (excluding household members under 6 years of age) used the Internet in the past year?

#### Please circle the one best answer.

- Note 1: Do not count the use of email functions, such as SMS,\* <u>sending by an address without @</u> that are only used between mobile phones or PHS handsets for "sending / receiving email."
- Note 2: Count Internet use from any kind of device, including computers, mobile phones, smartphones, or game consoles.
- Note 3: Count Internet use for any purpose, including use for work as well as for personal use. Count Internet use from any location, such as at home or outside
- Note 4: Count Internet use from any location, such as at home or outside your home.
- Note 5: Count Internet use from devices not owned by the household, such as computers in libraries or Internet cafes.
- 1. At least one person has used the Internet 2. No one has used the Internet Please go to Question 7 on Page 6. → (2) To households that answered 1 to (1) above (i.e., households with at least one Internet user): What device or devices have the Internet user(s) in your household used to access the Internet? Please circle all answers that apply. 1. Computers at home 4. Smartphones 2. Computers outside the home 5. Tablets 3. Mobile phones (including PHS handsets and PDAs) 6. Other devices (3) To households that answered 1, 5, or 6 to (2) above (i.e., households where computers at home, tablets, or other devices are used): What type of connection is used to access the Internet? Please circle all answers that apply. Note 1: Circle 5, 6, or 10 only when the Internet is used by tethering to another device including a computer and a tablet. Note that tethering here indicates the cases where a stick device is connected to a computer or where a smartphone or another device is connected by Wi-Fi. Note 2: Narrowband connections are low-speed connections with speeds generally less than 128 kbps. Broadband connections are connections capable of high speeds and ultra-high speeds Note 3: If you use ISDN over an optical fiber connection, please circle 3 "Optical fiber (FTTH)." Broadband connections\* Note 2 ●Narrowband connections\* Note 2 OWired: 1. DSL\* OWired: 7. Telephone (dial-up) 8. ISDN (not continuously connected)\* Note 3 2. Cable TV (CATV)\* 9. ISDN (continuously connected)\* Note 3 3. Optical fiber (FTTH)\* 4. Fixed wireless access (FWA)\* OWi-Fi: 10 PHS<sup>Note 1</sup> OWi-Fi: 5. Mobile phone (LTE, BWA) (such as an iPhone 5 or newer model, whose service is named "4G," "Xi," or "WiMAX")<sup>Note 1</sup> Others 11 Other 6. Mobile phone (other than 5; such as an iPhone up to iPhone 4S, whose service is named "3G" or "FOMA") Note1 12 No Internet connection

#### Q3 Concerning losses associated with Internet use

#### To households that answered 1 to Question 2 (1) (i.e., households with at least one Internet user):

Have you **suffered** any of the following **losses** associated with Internet use **in the past year**? Please **circle all losses** for each access device. Please **circle 10** if you have not suffered any losses. Please **circle 11** if no one has used the said device.

Note 1: *Phishing* is a type of fraud in which the attacker fakes emails from a real corporation or a real corporation's Website in order to get the victim to enter his or her PIN or password.

Note 2: Illegal access refers to access to a computer by abusing another person's ID and password (illegally using another person's account).

Note 3: Spyware refers to a program that collects personal information on a computer, such as access logs, and sends the information to an external computer.

			Computers (used at home)	Mobile phones (including PHS handsets)	Smartphones	Others (game consoles, etc.)
	1.	Discovered a computer virus* but not infected	1	1	1	1
-	2.	Discovered a computer virus* and at least one incidence of an infection	2	2	2	2
Н	- 3.	Received spam* (do not include fraudulent emails)	3	3	3	3
1	-4.	Received fraudulent emails*	4	4	4	4
	5.	Phishing* Note 1	5	5	5	5
	6.	Illegal access* Note 2	6	6	6	6
	7.	Personal information security breach by spyware,* Note 3 etc.	7	7	7	7
	8.	Defamation on forums,* social media, etc.	8	8	8	8
	9.	Other (copyright infringements, etc.)	9	9	9	9
	10.	No losses	10	10	10	10
	11.	No one has used the said devices	11	11	11	11

#### To households who received spam or fraudulent email:

	Computers (used at home)	Mobile phones (including PHS handsets)	Smartphones
10 or more a day	1	1	1
5 to 9 a day	2	2	2
2 to 4 a day	3	3	3
About 1 a day	4	4	4
About 1 every three days	5	5	5
About 1 a week	6	6	6
Less than 1 a week	7	7	7



Government

#### Ministry of Internal Affairs and Communications

# 2014 Communications Usage Trend Survey Form <<For Businesses>> Inis statistics survey has been conducted in accordance with the Statistics Act. The privacy of information

collected in this survey will be surely protected. Your accurate and complete answers are appreciated.

Department / section of the respondent	
Name of the respondent	
Contact phone number	

Please note the following before completing the survey.

1 Please give answers reflecting the situation at your company on December 31, 2014, except where noted otherwise. 2 Submit the completed survey to:

#### \*The survey form may also be obtained and submitted online.

For detailed information, please look at "Request for cooperation" enclosed herein.

3 If you have any questions, please contact the survey firm at:

4 The Ministry of Internal Affairs and Communications has contracted the survey firm above to conduct this survey. 5 Words defined in the Glossary are denoted with asterisks (\*). Please refer to the Glossary as needed.

#### Q1 The following questions concern your company's communication networks.

(1) Does your company have a computer-based communication network in place?

Please circle the one best answer for each type of network.

Company communication network type	Implementation state or future construction plans
① Intranet* Note 1	1. We have a company-wide intranet in place
	2. We have an intranet that serves some offices or divisions
	3. We do not have an intranet, but plan to construct one
	4. We do not have an intranet, and have no plans to construct one
<ol> <li>Inter-company</li> </ol>	1. We have a company-wide inter-company network in place
network* Note 2	2. We have an inter-company network that serves some offices or divisions
	3. We do not have an inter-company network, but plan to construct one
	4. We do not have an inter-company network, and have no plans to construct one
Note 1: Intranet refers to a cor	nmunication network on the same premises or a communication network between the head office and

branch offices or work sites of the same company. Note 2: *Inter-company network* refers to a communication network that connects to another or other companies.

### (2) To companies that answered either 1 or 2 to (1) above: Which of the following communication services

do vou use frequently?

No. 1	No. 2	No. 3		
1. Wide	-area Ethernet* Note 1		4. Leased line* Note 4	7. Don't know
2. IP-VF			5. Telephone (dial-up)	
3. 3. Inte	ernet VPN* Note 3		6. Other	
Note 3: Inte	ernet VPN is a service that	t constructs	closed IP communication network over a virtual private network over	
sole ementary Q	e use. Juestion 1: Why did you	ir compan		c network segment with a line reserved for the clien sted as No. 1 in (2) above?
sole lementary Q Please <u>circ</u>	e use.	ir compan <b>ply.</b>		
sole lementary Q Please <u>circ</u> 1. Lower	e use. Juestion 1: Why did you <b>le all answers that ap</b>	ir compan <b>ply.</b> 7. Abili	y choose the service you li	sted as No. 1 in (2) above?
sole lementary Q Please <u>circ</u> 1. Lower 2. Reliabi	e use. Tuestion 1: Why did you <b>Ie all answers that ap</b> communication costs	r compan <b>ply.</b> 7. Abili y conr	y choose the service you li ity to use XDSL* or FTTH*	sted as No. 1 in (2) above? 13. Broad service area
sole lementary Q Please <u>circ</u> 1. Lower 2. Reliabi	e use. Luestion 1: Why did you le all answers that ap communication costs lity / communication qualit ce-independent fee	r compan <b>ply.</b> 7. Abili y conr 8. Pas	y choose the service you li ity to use XDSL* or FTTH* nections	sted as No. 1 in (2) above? 13. Broad service area 14. VoIP / IP phone* functionality
sole ementary Q Please <u>circ</u> 1. Lower 2. Reliabi 3. Distand 4. High s	e use. Luestion 1: Why did you le all answers that ap communication costs lity / communication qualit ce-independent fee	r compan <b>ply.</b> 7. Abili y conr 8. Pas 9. Mair	y choose the service you li ity to use XDSL* or FTTH* nections t performance	sted as No. 1 in (2) above? 13. Broad service area 14. VoIP / IP phone* functionality 15. Ability to use other protocols* other than IF
sole ementary Q Please <u>circ</u> 1. Lower 2. Reliabi 3. Distand 4. High s	e use. Ruestion 1: Why did you le all answers that ap communication costs lity / communication qualit ce-independent fee beed nance and operation	rr compan <b>ply.</b> 7. Abili y conr 8. Pas 9. Mair 10. High	y choose the service you li ity to use XDSL* or FTTH* nections t performance nstream service	sted as No. 1 in (2) above? 13. Broad service area 14. VoIP / IP phone* functionality 15. Ability to use other protocols* other than If 16. Other reason

1. Lower communication costs	7. Ability to use XDSL or FTTH	13. Broad service area
2. Reliability / communication qualit	y connections	14. VoIP / IP phone* functionality
3. Distance-independent fee	8. Past performance	15. Ability to use other protocols other than IF
4. High speed	9. Mainstream service	16. Other reason
5. Maintenance and operation	10. High level of security	
systems	11. Recommended by telecom / integ	prator
6. Enriched add-on services	12. QA functionality	
	r company choose the service you	isted as No. 3 in (2) above?
lease circle all answers that ap	ply.	
lease circle all answers that ap	7. Ability to use XDSL or FTTH	13. Broad service area
lease circle all answers that ap	7. Ability to use XDSL or FTTH	
lease circle all answers that ap	7. Ability to use XDSL or FTTH	13. Broad service area
lease <u>circle all answers that ap</u> 1. Lower communication costs 2. Reliability / communication qualit	7. Ability to use XDSL or FTTH y connections	13. Broad service area 14. VoIP / IP phone* functionality
<ol> <li>Lease <u>circle all answers that ap</u></li> <li>Lower communication costs</li> <li>Reliability / communication qualit</li> <li>Distance-independent fee</li> </ol>	7. Ability to use XDSL or FTTH         y         connections         8. Past performance	<ul><li>13. Broad service area</li><li>14. VoIP / IP phone* functionality</li><li>15. Ability to use other protocols other than IF</li></ul>
<ol> <li>Lease <u>circle all answers that ap</u></li> <li>Lower communication costs</li> <li>Reliability / communication qualit</li> <li>Distance-independent fee</li> <li>High speed</li> </ol>	7. Ability to use XDSL or FTTH         y         connections         8. Past performance         9. Mainstream service	<ul> <li>13. Broad service area</li> <li>14. VoIP / IP phone* functionality</li> <li>15. Ability to use other protocols other than IF</li> <li>16. Other reason</li> </ul>

# (3) Is it possible to <u>access your company's intranet or inter-company network from off premises</u> using a computer, a mobile phone, or a personal digital assistant (PDA\*)?

Please circle the one best answer for each type of access device.

Access device	Accessibility or future accessibility plans	
① Computers	1. Accessible	
	2. Not accessible, but plan to make networks accessible	
	3. Not accessible, and have no plans to make networks accessible	
② Mobile phones, PHS handsets,	1. Accessible	
smartphones, personal digital	2. Not accessible, but plan to make networks accessible	
assistants (PDA*)	3. Not accessible, and have no plans to make networks accessible	

# (4) What <u>Internet access connection or connections</u> does your company have? Please <u>circle all answers</u> <u>that apply</u>.

Circle 12 if your company does not have Internet access.

1. Telephone (dial-up)	5. Optical fiber* (FTTH)	9. Leased line
2. ISDN (not continuously connected)* Note	6. Fixed wireless access (FWA)*	10. Satellite link*
3. ISDN (continuously connected) <sup>Note</sup>	7. BWA access service*	11. Other
4. Cable TV*	8. DSL*	12. No Internet access

Note: If you use ISDN over an optical fiber connection, please circle 5 "Optical fiber (FTTH)."

Q2 The following questions concern your company's provision of information via the Internet.

(1) Does your company have a Website? Please circle the one best answer.

1. Yes	2. No	
lementary Question: To companies that here are a circle all answers that apply.	nave a Website: What is the purpose	or application of your Website?
1. Publicize / promote products or events	5. Accept applications or notifications	8. Collect consumers' ratings and opinions
2. Provide periodic information	6. Conduct questionnaires	9. Other
3. Provide billing or usage details	7. Electronic public notices and financial	
4. Company profile / recruiting	statements	

(2) Does your company use private social media services\*? Please circle the one best answer.

- ·		
	social media? ease <u>circle all answers that apply.</u>	dia services: For what purpose or application do you use
	1. Marketing	4. Company profile / recruiting
	. Marketing	
	2. Publicize / promote products or events	5. Collect consumers' ratings and opinions

#### Q3 The following questions concern your company's usage of e-commerce.

(1)	Does your company use the Internet <sup>N</sup>	<sup>bre</sup> to make purchases or sales? Please <u>circl</u>	e all answers that apply.
	<ol> <li>Make purchases from other companies over the Internet</li> </ol>	3. Sell to consumers over the Internet (with services intended for computed	5. None of the above rs)
	2. Sell to other companies over the Internet	4. Sell to consumers over the Internet mobile phones or smartphones)	(with services intended for
	protocol used on the Internet) network	made over the public Internet and purchases made s, such as TCP/IP leased lines.	over TCP/IP* (the communication
Supp		sell to consumers? Please circle all answers	that apply.
	1. E-store (own site)	3. Sales broker 5	. Other
	2. E-store (store in an e-mall)	4. Online trading	

#### (2) Does your company use Internet advertising? Please circle all types of advertising that apply. Circle 13 if your company does not use Internet advertising

(Web advertising)	(Mobile advertising)
1. Text ads* Note 1	9. Picture ads*
2. Banner ads* <sup>Note 2</sup>	10. Content* ads
3. Rich media ads* <sup>Note 3</sup>	11. Email ads*
4. Sponsored ads* (editorial tie-ups, etc.)	
<ol><li>Contextual search ads*</li></ol>	(Other forms of advertising)
6. Contextual content ads* Note 4	12. Other Internet ads
(Email advertising)	
7. Newsletters	
8. Direct marketing ads* (targeted mailings, etc.)	13. Do not use Internet advertising

Note 2: Banner ads are images placed on Websites that advertise a different Website. When clicked, banner ads jump to the advertised Website.

Note 3: Rich media ads use audio and images and either respond to mouse movements or display video with streaming technology. Note 4: Servers of contextual content ads analyze the context or keywords in the content on a Web page and display ads with the most relevance to the content.

#### Supplementary Question: To companies that use Internet advertising: Why do you use Internet advertising? Please circle all answers that apply.

1. Using

1. Easy to measure advertising effects	3. Able to target ads to the needs of individual consumers
2. Inexpensive ad prices	4. Able to provide information over a wide area

#### Q4 The following question concerns your company's adoption of systems and tools that use wireless communication technology.

#### Has your company adopted the following systems and tools that use wireless communication technology? Please circle the one best answer for each system or tool.

System or tool that uses wireless communication technology	Adoption or future adoption plans
<ol> <li>RFID tags*</li> </ol>	1. Adopted company wide
Ex: Production, inventory, or distribution	2. Adopted in some offices or divisions
management by means of identifying items	3. Not adopted, but have adoption plans
	4. Not adopted, and have no adoption plans
② Contactless IC cards*	1. Adopted company wide
Ex: Room access controls and cashless	2. Adopted in some offices or divisions
transactions by means of personal	3. Not adopted, but have adoption plans
authentication	<ol><li>Not adopted, and have no adoption plans</li></ol>
③ New network-enabled devices (network)	1. Adopted company wide
cameras, sensors, etc.)	2. Adopted in some offices or divisions
Ex: Security systems using network	<ol><li>Not adopted, but have adoption plans</li></ol>
cameras or motion sensors	<ol><li>Not adopted, and have no adoption plans</li></ol>
④ GPS, mobile phone, or other location	1. Adopted company wide
devices	2. Adopted in some offices or divisions
Ex: Traffic management based on vehicle	<ol><li>Not adopted, but have adoption plans</li></ol>
location information	<ol><li>Not adopted, and have no adoption plans</li></ol>
	pted systems or tools using wireless communication technology rour system or tool and use the results for purposes such as cle the one best answer.
1 Using 2 Noturin	a but planning to use 2 Neither using nor planning to

2. Not using but planning to use

3.

use

Q5	The following qu	estions concern	your company's	use of cloud	computing.*
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(1)	Does your company use cloud computing (the cloud) <sup>No</sup>	<sup>ite</sup> ? Please circle the one best answer.			
	1. Used company wide     2. Used by some offices or divisions	<ol> <li>Not used, but plan to use</li> <li>Not used, and have no plans to use</li> <li>Do not understand cloud services</li> </ol>			
		vice, users with network-based computer assets when needed and in th ion methods. An example is software as a service* (SaaS) provided by			
→(2)	To companies that answered either 1 or 2 to (1) above <u>Which device or devices</u> does your company use to a Please <u>circle all answers that apply.</u>				
		Tablets5. Other (PDAs, etc.)Computers			
	Note: Please give separate answers for conventional n	nobile phones and smartphones.			
→(3)	To companies that answered either 1 or 2 to (1) above	:			
	Which specific cloud computing services does your company use? Please circle all answers that apply.				
	1. Server applications 8. Sharing information	tion with business partners 14. Order taking and sales			
	2. File storage / data sharing 9. Sales support	15. Purchasing			
	3. Data backups 10. R&D related	16. Production management, distribution			
	4. Internal information sharing / portal 11. System develop	oment and Website management, store management			
	5. Email construction	17. Billing and payment systems			
	6. Schedule sharing 12. e-Learning	18. Authentication systems			
	7. Project management 13. Payroll, financia	al accounting, HR 19. Other			
(4)	To companies that answered either 1 or 2 to (1) above				
→(-')	Why do you use cloud computing services? Please <u>cir</u>				
	<ol> <li>Costs are lower than existing systems</li> <li>Initial investment is inexpensive</li> </ol>	<ol> <li>Boost security against information theft, etc.</li> <li>Improve operational stability and availability</li> </ol>			
	3. No need to have internal asset and storage syste				
	4. Quick response capability, such as upgrading system				
	5. Easy system scalability	13. Access services from anywhere			
	6. High service reliability	14. Access identical services from any device			
	7. Offered by system vendor	15. Can terminate use at any time			
	8. Easy license management	16. Other			
→(5)	To companies that answered either 1 or 2 to (1) above What impact has cloud computing had on the purposes				
	1. Very beneficial 3. Not very				
	2. Somewhat beneficial 4. Negative	e impact			
- → (6)	To companies that answered 4 to (1) above:	vices? Please circle all answers that apply.			
	Why does your company not use cloud computing serv				
	Why does your company not use cloud computing server.           1. Considerable cost to retool existing systems when				
		n 6. Information theft and other security concerns			
	1. Considerable cost to retool existing systems whe	n 6. Information theft and other security concerns 7. No legal system in place			
	1. Considerable cost to retool existing systems whe introducing cloud services	n 6. Information theft and other security concerns 7. No legal system in place			
	<ol> <li>Considerable cost to retool existing systems whe introducing cloud services</li> <li>Cloud services would hinder corporate compliance</li> </ol>	n 6. Information theft and other security concerns 7. No legal system in place 8. Not necessary			

#### Q6 The following question concerns your company's introduction of telework.

Has your company introduced telework\* Note? Please circle the one best answer.

(If your company has introduced telework, circle all answers of a, b, and c that your telework includes.)

	<ul> <li>(Please answer questions ①, ②, and ③ below)</li> <li>2. Not introduced, but have specific plans to introduce telework</li> <li>3. Not introduced, and have no specific plans to introduce telework</li> </ul>
,  No	(Please answer question (a) below) (Please answer question (b) below) (Please answer question (b) below) (Please answer question (b) below) (Please answer question physically separate from the company's building by means of communication network Depending on the worker's work location, telework is called working from home, <u>satellite office work (where the worker the worker works at an office that is not the original work place)</u> , or mobile work (where the worker, such as a salesperson, works using a mobile information device while out of the office). To companies that answered 1 to the question above.
	<ol> <li>What percentage of your employees use telework? Please circle the one best answer.</li> <li>Less than 5 percent</li> <li>3. 10 percent to less than 30 percent</li> <li>5. 50 percent to less than 80 percent</li> <li>4. 30 percent to less than 50 percent</li> <li>6. 80 percent or more</li> </ol>
	② What were the purposes of introducing telework at your company? Please circle all answers that apply.
	<ol> <li>Raise efficiency (productivity) of routine business processes</li> <li>Improve creativity of creative, value-added business processes</li> <li>Improve creativity of creative, value-added business processes</li> <li>Provide healthy, comfortable lives for workers</li> <li>Reduce office costs</li> <li>Reduce workers' travel times</li> <li>Increase customer satisfaction</li> <li>Support people who have difficulty using public transportation (physically disabled, older people, pregnant women, etc.)</li> <li>Counter global warming by lowering CO2 emissions through transportation alternatives</li> <li>Conserve energy and electricity</li> <li>Prepare for business continuity in the event of emergencies (earthquakes, super-flu outbreaks, etc.)</li> </ol>
	<ul> <li>7. Attract better employees 12. Other</li> <li>3 What has been the overall impact of telework on the purposes given in ② above?</li> </ul>
	Please circle the one best answer.         1. Very beneficial       3. Not very beneficial       5. Do not know the impact         2. Somewhat beneficial       4. Negative impact
)	<ul> <li>To companies that have not introduced telework; i.e., answered 3 to the question above.</li> <li>Please <u>circle all reasons</u> why you have not introduced telework?</li> <li>If you circle 14 "Other," please give a specific reason in the space provided.</li> </ul>
	1. Work is not suited to telework9. Impedes handling customers and other external entities2. Difficult to advance work operations9. Impedes handling customers and other external entities3. Do not see the advantage of introducing telework10. Too expensive4. Difficult to assess employees11. Troublesome to introduce an HR system5. Impedes office / internal communications12. Difficult to calculate wages

Q7 The following question concerns all ICT (IT)\* <sup>Note</sup> education provided by your company to employees. Note: *ICT* is short for Information and Communication Technology. It is synonymous with IT.

Which of the following education programs does your company provide? Please <u>circle all answers that apply.</u>

<ol> <li>Internal ICT (IT) education / training programs</li> <li>External ICT (IT) education / training programs</li> </ol>	<ol> <li>Provide time to employees who voluntarily enroll in ICT (IT) courses</li> </ol>
<ol> <li>Provide financial assistance to employees who voluntarily enroll in ICT (IT) courses</li> </ol>	<ol> <li>Test ICT (IT) abilities and skills</li> <li>Other education and training</li> </ol>
<ol> <li>Pay bonuses to employees who obtain ICT (IT) qualifications</li> </ol>	8. None of the above

Q8 The following questions ask companies that use ICT networks (intranets, inter-company networks, the Internet, etc.) about their security measures.

(1)	Have any security breaches equivalent to 1 to 8 below occurred in the past year in the use of ICT
	networks at your company?
	Please circle all answers that apply. Circle 9 if no security breaches occurred.

Flease circle an answers that apply. Circle 9 in no security breaches occurred.		
1. Discovered a computer virus* but not infected	5. DoS (DDoS) attack* Note 2	
2. Discovered a computer virus and at least one incidence	6. Website defacement	
of an infection	7. Data breach due to theft or negligence	
3. Illegal access <sup>* Note 1</sup>	8. Other losses	
4. Used as a spam* bot or zombie	9. No breaches	

Note 1: Illegal access means infiltrating a company or individual's computer system without permission and causing system failures or making use of the system without authorization.

Note 2: DoS attack is an attack where the attacker sends massive amounts of packets to a server to bring down a system or disrupt services.

(2)	What measures has your company taken for data security and anti-virus protection on ICT networks?
	Please <u>circle all answers<sup>Note 1</sup> that apply.</u>

	—1. Establish security policies	12. User authentication by means of authentication
	2. Security audits	technologies
	3. Outsource security management	13. Encrypt data or networks
	4. Training for employees	14. Line monitoring
	5. Install anti-virus programs on computers and other	15. Install and maintain firewalls
	devices (operating system, software, etc.)	16. Use proxy servers, etc.
	6. Install anti-virus programs on servers	17. Install and maintain intrusion detection systems
	<ol><li>Apply security patches* for operating systems</li></ol>	(IDS)* Note 2
	8. Construct anti-virus walls at external access points	18. Install and maintain Web application firewalls
	9. Establish manuals on responding to viruses	19. Other measures
	10. Control access with IDs, passwords, etc.	20. No particular measures
	11. Maintain access logs	
Supple	mentary Question 1: To companies that answered 1 to (2)	above:
D	mentary Question 1: To companies that answered 1 to (2) Does your company's security policies have <u>rules on the u</u>	
D	mentary Question 1: To companies that answered 1 to (2) Does your company's security policies have <u>rules on the u</u> Please <u>circle the one best answer</u> .	ise of smartphones in work operations?
D	mentary Question 1: To companies that answered 1 to (2) Does your company's security policies have <u>rules on the u</u> Please <u>circle the one best answer</u> . 1. Prohibit all use	<b>use of smartphones in work operations</b> ? 4. Permit the use of both company-supplied
D	mentary Question 1: To companies that answered 1 to (2) Does your company's security policies have <u>rules on the u</u> Please <u>circle the one best answer</u> .	4. Permit the use of both company-supplied smartphones and personal smartphone
D P Supple	mentary Question 1: To companies that answered 1 to (2) Does your company's security policies have <u>rules on the u</u> Please <u>circle the one best answer</u> . 1. Prohibit all use 2. Permit use of only company-supplied smartphones	4. Permit the use of both company-supplied smartphones and personal smartphone 5. Have no specific rules above:
D P Supple	<ul> <li>mentary Question 1: To companies that answered 1 to (2)</li> <li>Does your company's security policies have <u>rules on the u</u></li> <li>Please <u>circle the one best answer</u>.</li> <li>1. Prohibit all use</li> <li>2. Permit use of only company-supplied smartphones</li> <li>3. Permit use of personal smartphones for work operation</li> <li>mentary Question 2: To companies that answered 1 to (2)</li> <li>Does your company's security policies have <u>rules on the u</u></li> </ul>	4. Permit the use of both company-supplied smartphones and personal smartphone 5. Have no specific rules above:
D P Supple	<ul> <li>mentary Question 1: To companies that answered 1 to (2)</li> <li>Does your company's security policies have <u>rules on the u</u></li> <li>Please <u>circle the one best answer</u>.</li> <li>1. Prohibit all use</li> <li>2. Permit use of only company-supplied smartphones</li> <li>3. Permit use of personal smartphones for work operation</li> <li>mentary Question 2: To companies that answered 1 to (2)</li> <li>Does your company's security policies have <u>rules on the u</u></li> <li>Please <u>circle all answers that apply</u>.</li> </ul>	<ul> <li>4. Permit the use of both company-supplied smartphones and personal smartphone</li> <li>5. Have no specific rules</li> <li>above:</li> <li>above:</li> </ul>
D P Supple	<ul> <li>mentary Question 1: To companies that answered 1 to (2) poes your company's security policies have <u>rules on the u</u> please <u>circle the one best answer</u>.</li> <li>1. Prohibit all use</li> <li>2. Permit use of only company-supplied smartphones</li> <li>3. Permit use of personal smartphones for work operation</li> <li>mentary Question 2: To companies that answered 1 to (2) poes your company's security policies have <u>rules on the u</u> please <u>circle all answers that apply</u>.</li> <li>1. Prohibit opening accounts with company name</li> </ul>	<ul> <li>4. Permit the use of both company-supplied smartphones and personal smartphone</li> <li>5. Have no specific rules</li> <li>above:</li> <li>above:</li></ul>

2. Targeted emails reached an employee's device, but there were no computer virus infections3. Anti-virus programs and other measures blocked all targeted emails before reaching any device

4. Have seen no traces of targeted emails

Note 1: Unlike spam that is sent to random recipients, targeted email, which often has virus attachments, is sent to a specific organization or person with the objective of stealing confidential information.

#### What measures has your company taken against targeted email? (4) Please circle all answers that apply.

- 1. Training for employees
- 2. Install anti-virus programs on computers and other
  - devices (operating system, software, etc.)
- 3. Install anti-virus programs on servers
- 4. Apply security patches for operating systems
- 5. Construct anti-virus walls at external access points 6. Enhance access controls for servers and other devices
- 8. Line monitoring
- 9. Use proxy servers,\* etc.
- 10. Install and maintain intrusion detection systems (IDS)Note 2
- 11. Share information between organizations and divisions
- 12. Install a sender policy framework (SPF)\*
- 13. Other measures
- 14. No particular measures

Note 2: Includes intrusion protection systems (IPS).

#### What measures has your company taken for personal information protection? (5) Please circle all answers that apply.

1. Obtained Privacy Mark certification\*

that store sensitive data

7. Maintain access logs

- 6. Enhanced internal training
- 2. Established a privacy policy
- 7. Strengthened conditions on external supplier selection
- (e.g., has obtained Privacy Mark certification, etc.) 3. Appointed a manager in charge of personal information protection
  - 8. Other measures
- 4. Minimized the personal information handled 9. No particular measures
- 5. Rebuilt systems and organizations
- Does your company have a chief information officer (CIO)\* Note? (6) Please circle the one best answer.

  - 1. Have a full-time CIO
  - 2. Have a part-time CIO whose primary responsibility is ICT (IT)
  - 3. Have a part-time CIO whose secondary responsibility is ICT (IT)
  - 4. Do not have a CIO, but plan to appoint one
  - 5. Do not have a CIO, and have no plans to appoint one

Note: A CIO is an executive officer who organizes and oversees information communication strategy and business strategy.

Q9 The following question concerns issues associated with ICT network (intranets, inter-company networks, the Internet, etc.) usage and issues preventing ICT network usage.

What issues do you see associated with usage of ICT networks (intranets, inter-company networks, the Internet, etc.)? For companies that do not use ICT networks, what issues are preventing you from using ICT networks? Please circle all answers that apply.

1. Difficulties in establishing security measures 8. Difficulties in quantifying benefits of network adoption 2. Rising operational and management costs 9. Concern about the reliability of authentication technology 3. Lack of operational and administrative personnel 4. Difficulties in restoring operations after a fault 10. Concern about the reliability of electronic payments 5. Concern about protection of copyrights and 11. Low security awareness among employees intellectual property 12. High communication charges 6. Concern about virus infections 13. Low communication speeds 7. Difficulties in achieving benefits from network 14. Other adoption 15. No particular issues

<Questionnaire> The following question concerns the answering method for this survey. If you can respond to this survey on the Internet system display, would you like to respond via the Internet?

Please circle the one best answer.

1. Yes 2. No	3. Don't know
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The final questions concern general aspects of your company. You may attach a copy of your annual financial statement in lieu of completing the answers on this form if the financial statement contains the same information as the questions. Please underline the relevant sections in the financial statement.

What is the capitalization value (sum of investments and funds) of your company? F1 Please circle the one best answer.

1. Less than ¥10 million	4. ¥50 million to less than ¥100 million	7. ¥1 billion to less than ¥5 billion
2. ¥10 million to less than ¥30 million	5. ¥100 million to less than ¥500 million	8. ¥5 billion or more
3. ¥30 million to less than ¥50 million	6. ¥500 million to less than ¥1 billion	

What are the annual sales Notes1,2 of your company? Please indicate your annual sales to the nearest million yen. F2

	!			million	Note
				yen	

te 1: Please enter your FY 2013 sales (the year April 2013 through March 2014). If this is difficult to calculate, please enter the most recently calculated annual sales.

Companies in the banking industry, please enter your income Note 2: before tax; life insurance companies, please enter your insurance contributions, etc.; and non-life insurance companies, please enter your net premiums written.

F3 What is the operating profit<sup>Notes1,2</sup> of your company? Please indicate your operating profit to the nearest million yen.

	million yen	Note 1: Note 2:	Please enter your FY 2013 operating profit (the year April 2013 through March 2014). If this is difficult to calculate, please enter the most recently calculated annual operating profit. Companies in the banking industry, please enter your net
			operating profit; life insurance companies, please enter your basic profits; and non-life insurance companies, please enter your underwriting profit.
F4	What are the labor costs <sup>Note</sup> of your company? Please in	ndicate yo	ur labor costs to the nearest million yen.
	million yen	Note:	Please enter your FY 2013 labor costs (the year April 2013 through March 2014). If this is difficult to calculate, please enter the most recently calculated annual labor costs.
F5	What are the deprecation costs <sup>Note</sup> of your company? P	lease indi	cate your deprecation costs to the nearest million yen.
	million yen	Note:	Please enter your FY 2013 deprecation costs (the year April 2013 through March 2014). If this is difficult to calculate, please enter the most recently calculated annual deprecation costs.
F6	How many full-time employees <sup>Note</sup> does your comp	bany have	9?
	Temployees	company as definition in time worker	nployees: This is the number of full-time employed people at your s of December 1, 2014 or the nearest payroll deadline date. This cludes people called temporary workers, day laborers, or part- rs with employment contracts longer than one month and includes ployed on the date of the survey who worked 18 days or more in

© This completes the survey questions. Please return the completed survey form in the enclosed in the enclosed return envelope. No postage stamp is required.

both October and November 2014.

Thank you for your participation.

#### Q4 Concerning Internet security measures

#### To households that answered 1 to Question 2 (1) (i.e., households with at least one Internet user):

Have you taken measures against viruses or illegal access for devices that you use at home such as computers, mobile phones (including PHS handsets), smartphones, and tablets in the past year? Please circle the one best answer.

upplementary C	What measures h	s that answered 1 above (i.e., households that have taken measures): have you taken against viruses or illegal access in the past year? Inswers that apply.
1. Insta	led or updated a security	y program
2. Signe	ed up to or updated a se	curity service from a provider or mobile telecom
3. Set a	password on devices to	prevent illegal access from outside or illegal use by outsiders
4. Did n	ot connect to the Interne	et using an unknown or unsecured source
5. Set a	n administrator to check	for changing the setting of device or installing suspicious software
6. Did n	ot take the above measu	ures
7. Don't	know whether the above	e measures have been taken or not

#### Q5 Concerning your concerns about using the Internet

## To households that answered 1 to Question 2 (1) (i.e., households with at least one Internet user): Do you have any <u>concerns</u> about using the Internet?

#### Please circle the one best answer.

1. I'm concerned 2. I'm somewhat concerned 3. I'm not so concerned 4. I have no concerns								
Supplementary Question: <u>To households that answered 1 or 2 (i.e., households that answered they an</u> <u>somewhat concerned</u> ): What specific concerns do you have? Please <u>circle all answers that apply</u> .	<u>re concerned or</u>							
1. Concern about leak of personal information and internet use history								
2. Concern about the reliability of electronic payment means								
3. Concern about unknowing breach of intellectual property rights of others such as copyrights								
4. Concern about computer virus infections								
5. Concern about the reliability of authentication technology*	5. Concern about the reliability of authentication technology*							
6. Concern about a flood of illegal or harmful information								
7. Concern about sending and receiving emails well								
8. Unclear how far to take security measures								
9. Concern about whether I understand security threats properly								
10. Concern about trouble with communication on social media, etc.								
11. Concern about myself or people close to me becoming an Internet addict								
12. Concern about fraudulent email or fraud using the Internet								
13. Concern about receiving spam								
14. Other								

#### Q6 Concerning Internet use by children under 18

(1) Do you have a child under 18 in your household?

— 1. Yes

2. No

(2) Does your household own devices that children under 18 use? Please choose "yes" or "no" for each device.

For devices concerning "yes," please circle the one best answer for use of filtering software\* or filtering services provided by Internet providers or mobile telecoms that can restrict access to harmful sites on the Internet.

	r 18		Filter	ing services o	or filtering so	ftware
	Internet use by children under 18	device)	Have used	Had used but have not used now	Have not used	Don't know whether having used
		2	* Circle t	 he one best a	answer for ea	ch device
Computer	Yes	No	1	2	3	4
Mobile phone	Yes	No	1	2	3	4
Smartphone	Yes	No	1	2	3	4
Tablet	Yes	No	1	2	3	4

(3) Concerning use of filtering software or services above (1),

#### To households that answered 2 or 3 for any device:

Why does your household not use filtering? Please circle all answers that apply.

- 1. A child asked not to use filtering software/services
- 2. Filtering software/services is an obstacle to my own use
- 3. Setting of filtering software/services is troublesome
- 4. Necessity faded away as my child has grown
- 5. Dependence on filtering software/services may fail to improve child's judgment
- 6. Didn't know about filtering software/services
- 7. Have no particular reason

## (4) To households that answered in (2) above that children use Internet by a mobile phone (including PHS handsets) or smartphone:

In the past year, did a retail outlet's staff member explain filtering when your household's under-18 child signed up for a mobile phone (including PHS handsets) or smartphone subscription? Please circle the one best answer.

	Signing a new si	ubscription		
	1. Yes	2. No	3. Don't remember	4. Did not sign up for a new subscription in the past year
2	Changing hands	et models		
	1. Yes	2. No	3. Don't remember	4. Did not sign up for a new subscription in the past year

#### Q7 Concerning use of digital TV broadcast receivers

(1)	To households that answered in Question 1 (2) that they have at least one device that can receive digital TV broadcasts
	How often has your household used the following functions of a digital TV broadcast receiver in the past year?
	Please circle the one best answer for each function.

	Use at least once a day	Use at least once a week	Use at least once a month	Use at least once a year	Do not use at all	Please answer		
Data broadcast function (using the d button on the remote control) Internet access function 2. (Use "acTVila," "HikariTV," etc.)	1 1	2 2	3 3	4	5 5	Supplementary		
		-				Please answer Supplementary		
Supplementary Question 1: <u>To households that answered any of 1-4 of</u> <u>For what purpose</u> does your household use the data broadcast fu Please <u>circle all answers that apply</u> .			dcast f	unctio	o <u>n in (</u> 1	<u>1)</u> :		
<ol> <li>Obtain information related to the current program (E.g.</li> <li>Purchase goods or services presented by programs</li> </ol>	4. Participate in quizzes, questionnaires, and other program projects							
Supplementary Question 2: <u>To households that answered any of 1-4 of Internet access function in (1)</u> : <u>For what purpose</u> does your household use the Internet access function? Please <u>circle all answers that apply</u> .								
<ol> <li>Video on demand (VOD)* or other streamed programming</li> <li>Web uses, such as browsing Websites, posting videos, using forums, chat,* social networking,* online shopping, etc.</li> <li>Online gaming*</li> <li>Videophone</li> <li>Make recording settings or watch recorded programs on smartphones or tablets via a network</li> <li>Obtain information related to the current program</li> <li>Other</li> </ol>								
(2) Do you want to use <u>the following services using digital TV broad</u> Please <u>circle all answers that apply</u> .	dcast	receiv	ers if t	hey be	come	available in the future?		
<ol> <li>Video on demand (VOD) or other streamed programming</li> <li>Web uses, such as browsing Websites, posting videos, using</li> <li>Online gaming</li> <li>Videophone</li> <li>Make recording settings or watch recorded programs of</li> <li>Obtain information related to the current program</li> <li>Other</li> <li>Have no particular</li> </ol>	g forum				-			

#### Q8 Concerning your household's members and income

(1) Please indicate **<u>the number of people</u>**, including yourself, in your household.

(2) What was your household's **combined annual income last year**?

#### Please circle the one best answer.

1. Less than ¥2 million	4. ¥6 million to less than ¥8 million	7. ¥15 million to less than ¥20 million		
2. ¥2 million to less than ¥4 million	5. ¥8 million to less than ¥10 million	8. ¥20 million and over		
3. ¥4 million to less than ¥6 million	6. ¥10 million to less than ¥15 million			

people

#### <Questionnaire> The following question concerns the answering method for this survey.

If you can respond to this survey on the Internet system display, would you like to respond via the Internet? Please <u>circle the one best answer</u>.

1. Yes	2. No	3. Don't know
	21110	

#### Household member section: Please give answers reflecting the situation for each member in your household.

- Each member of your household who is 6 or older should answer the following questions individually.
- The head of the household may fill out answers for younger children or others who may find the questions difficult.
- ◎ If there are more than six people in your household who are 6 or older, please contact us for an additional survey form.

Please indicate the gender and age of each household member who is 6 or older.	A (Head of household)	В	С	D	E
Gender (circle either male or female)	Male Female	Male Female	Male Female	Male Female	Male Female
Age (fill in the person's age)	years old	years old	years old	years old	years old
			er the follow	• •	
	sepa	arately for_ ↓	each house ↓	<u>ehold mem</u> ↓	ber. ↓
The following questions are intended for <u>all household members 6 ar</u>	d older				
Q1 Concerning individual Internet usage					
(1) This question asks about <u>your ownership of devices with communication functions.</u> Do you own any of the devices 1 through 7 listed below?					
Please <u>circle all answers that apply</u> .	Α	В	С	D	E
1. Computers at home	1	1	1	1	1
2. Computers outside the home	2	2	2	2	2
3. Mobile phones (including PHS handsets)	3	3	3	3	3
4. Smartphones	4	4	4	4	4
5. Tablets	5	5	5	5	5
6. TV receivers	6	6	6	6	6
7. Internet-enabled home game consoles and other devices	7	7	7	7	7
<ul> <li>Note: <i>TV receivers</i> (option 6) includes both digital TV receivers that connect directly to the Internet and the use of the Internet on device. Please circle 7 if you used the Internet on the screen of a TV receiver via a home game console. This distinction ap</li> <li>(2) Have you <u>used the Internet</u> (including sending or receiving email, browsing Websites, etc. from</li> </ul>				ier, tuner, or	similar
a computer, mobile phone, or other device) <u>in the past year</u> ? Please <u>circle the one best answer</u> .	Α	В	С	D	Е
1. Yes 2. No	2	2	2	2	2
"sending / receiving email." Note 2: Count Internet use from <u>any kind of device</u> , including computers, mobile phones, smartphones, or game conso Note 3: Count Internet use for <u>any purpose</u> , including use for work as well as for personal use. Note 4: Count Internet use from <u>any location</u> , such as at home or outside the home. Note 5: <u>Count Internet use from devices not owned by the household</u> , such as computers in libraries or Internet caf					
Supplementary Question: To all people who have used the Internet:					
What <u>device or devices have you used</u> to access the Internet? Please <u>circle all answers that apply</u> . In addition, please <u>enter the number of devices that you have used primarily</u> .	A	В	С	D	Е
1. Computers at home	1	1	1	1	1
2. Computers outside the home	2	2	2	2	2
3. Mobile phones (including PHS handsets)	3		3	3	3
4. Smartphones 5. Tablets	4	4	4	4	4
6. TV receivers	6	6	6	6	6
7. Internet-enabled home game consoles and other devices	7	7	7	7	7
7. Internet-enabled nome game consoles and other devices	/		/		7
Device that have used primarily (please enter one number.)					
<ul> <li>(3) <u>To all people who have used the Internet</u>: <u>How often</u> do you use the Internet? Please <u>circle the one best answer</u>.</li> </ul>	A	в	С	D	E
1. Use at least once a day	1 1		1 1		1 1
2. Use at least once a week (but not every day)	2 2	2 2	2 2	2 2	2 2
3. Use at least once a month (but not every week)	33	33	33	33	33
4. Use at least once a year (but not every month)	4 4	4 4	4 4	4 4	4 4

#### (4) To all people who have used the Internet outside the home in the past year:

Where do you use the Internet outside your home? Plea

ere do you use the Internet <u>outside your home</u> ? se <u>circle all answers that apply</u> .	А	В	С	D	E
1. Workplaces	1	1	1	1	1
2. Schools	2	2	2	2	2
3. Public facilities (government offices, libraries, community centers, etc.)	3	3	3	3	3
4. Airports / train stations	4	4	4	4	4
5. While commuting on public transport	5	5	5	5	5
6. Restaurants, coffee shops, etc. (excluding Internet cafés in option 7)	6	6	6	6	6
7. Internet cafés	7	7	7	7	7
8. Hotels or other accommodations	8	8	8	8	8
9. Other locations	9	9	9	9	9

Note 1: Workplaces (option 1) includes employed people who work at home and use the Internet and teachers, instructors, etc. who use the Internet at a school. Note 2: Schools (option 2) includes children, students, and university students who use the Internet in classes and elsewhere at elementary schools, junior high schools, high schools, secondary schools, universities, or graduate schools.

Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access methods (connections) do you use to access the Internet Supplementary Question 1: What access the Internet Suppleme	ernet outs	ide your	<u>home</u> ?		
Please circle all answers that apply.	А	в	С	D	Е
Also indicate your primary access method.					
1. 3G mobile phone connection*	1	1	1	1	1
2. LTE*	2	2	2	2	2
3. Public Wi-Fi	3	3	3	3	3
4. Other	4	4	4	4	4
Primary access method (please enter one number)					
Supplementary Question 2: To people who answered 3 to Supplementary Question 1 above (i.	e., people	who use	e public V	Wi-Fi con	nections
What information security measures do you take when using a public Wi-Fi connection?	A	В	С	D	Е
Please circle all answers that apply.	~	В	C		
1. Confirm the access point I'm connecting to	1	1	1	1	1
2. Turn off file sharing functions	2	2	2	2	2
3. Exchange important information over SSL	3	3	3	3	3
4. Avoid exchanging important information	4	4	4	4	4
5. Take no measures	5	5	5	5	5
Supplementary Question 3: To people who answered 5 to Supplementary Question 2 above (i.	<u>e., people</u>	<u>who do</u>	not take	any secu	<u>urity</u>
measures): Why do you not take any information security measures?	А	В	С	D	Е
Please <u>circle the one best answer</u> .					
1. Don't know what to do	1	1	1	1	1
2. It's a nuisance	2	2	2	2	2
3. Don't feel it is necessary	3	3	3	3	3
4. Other	4	4	4	4	4
Supplementary Question 4: To people who did not mark "3. Public wireless LAN" with a circle in Su	pplementa	ry Questi	ion 1.		
Why do you not use public wireless LAN?	А	В	С	D	Е
Please circle all answers that apply.		В	Ŭ		
1. The service area is small or is difficult to find.	1	1	1	1	1
2. The fee must be paid.	2	2	2	2	2
3. Concerned about security.	3	3	3	3	3
4. Cumbersome to switch between public wireless LAN and mobile phone network.	4	4	4	4	4
5. Transmission speed is slow.	5	5	5	5	5
6. Shortens the device's battery life.	6	6	6	6	6
7. Difficult to arrange the settings or to obtain registration.	7	7	7	7	7
8. The device does not have a public wireless LAN function.	8	8	8	8	8
9. Do not know what public wireless LAN is	9	9	9	9	9
10. Other reasons	10	10	10	10	10
11. No particular reason	11	11	11	11	11

#### Q2 Concerning the purpose and applications of Internet use

-

#### (1) To all people who have used the Internet: For what purposes or applications have you used Internet functions or services in the past year? А В С D Е Please circle all answers that apply. 1. Sending and receiving email (excluding newsletters) 2. Receiving newsletters by email (free newsletters) Please answer Question 3 as well if you circled 6. 3. Viewing / posting to business, government Websites and blogs\* 4. Viewing / posting to personal Websites and blogs 5. Constructing / updating your Websites and blogs 6. Using social media (mixi, Facebook, GREE, Mobage, Twitter, LINE, etc.) 7. Using forums\* and chat\* sites 8. Using free calling apps or voice chat sites (Skype, LINE, etc.) 9. Using video posting / sharing sites (Youtube, Niconico Douga, etc.)\* 10. Using on-demand radio, TV, and movie streaming services 11. Using web album (picture / image posting / sharing service including Flickr and Photozou) Please answer Question 4 as well if you circled 9 or 10. 12. Using online gaming 13. Entering quizzes and contests, answering questionnaires 14. Obtaining free map / traffic information services 15. Using free weather forecast 16. Using news sites 17. Using dictionary and encyclopedia sites 18. Exchanging / downloading digital files: P2P,\* FTP,\* etc. 19. Financial transactions: banking, securities, insurance, etc. transactions over the Internet 20. Buying / exchanging digital content: music, audio, video, games, etc. Buying / exchanging goods and services: excluding digital content purchases and financial 21. transactions 22. Internet auctions\* Using e-Government, e-Local Government services: online applications, online reports, and 23. Online notifications 24. Other

# Please answer Supplementary Questions 1 through 3 as well if you circled 20, 21, or 22 in (1) above. These questions are to be answered only by people aged 15 and older.

	ementary Question 1: What goods or services have you purchased or exchanged? Please <u>circle all answers that</u>	А	В	С	D	E
	1. Computers and related items (computers, peripheral devices, and software (limited to physical products sold on DVD-ROMs, etc.))	1	1	1	1	1
	2. Books, CDs, DVDs, Blu-Ray disks (excluding e-books and other digitally distributed content)	2	2	2	2	2
anvice	3. Everyday sundries (food products, clothing, cosmetics, stationery, etc.)	3	3	3	3	3
	4. Consumer durable goods (furniture, home appliances, etc.)	4	4	4	4	4
	5. Hobby-related goods (accessories, musical instruments, sporting goods, toys, automobile supplies, etc.)	5	5	5	5	5
Prod	6. Tickets, cash vouchers (reservation and purchase of tickets for transportation, hotels, inns, concerts, etc.)	6	6	6	6	6
	7. Other products and services (excluding digitally distributed content)	7	7	7	7	7
	8. Software (including games)	8	8	8	8	8
	9. Music (including ring tones)	9	9	9	9	9
	10. Video	10	10	10	10	10
ote	11. Images (including wallpaper)	11	11	11	11	11
Cital contort Note	12. Ebooks	12	12	12	12	12
	13. Online game fees and charges for game items and avatars	13	13	13	13	13
	14. Internet service fees excluding online games	14	14	14	14	14
Ž	15. News and magazine articles	15	15	15	15	15
	16. Newsletters	16	16	16	16	16
	17. Map / traffic information services	17	17	17	17	17
	18. Other digital content	18	18	18	18	18
	Note: Products and services here indicate those distributed digitally. Please exclude those provided for	or free.	••			

#### Supplementary Question 2:

 $\underline{\textbf{What payment methods have you used}}$  when purchasing goods or making financial transactions on the Internet? Please circle all answers that apply.

	_	
1. Credit card (excluding use for payment on delivery) <sup>Note</sup>		1
2. Payment on delivery		2
3. Payment at bank / post office branch or ATM		3
4. Payment at convenience store		4
5. Payment by Internet banking / mobile banking*		5
6. Payment by addition to communication charges / provider charges		6
7. Payment by electronic money (Edy, Suica, etc.)		7
8. Payment by cash remittance by registered mail, money order, personal cheque		8
9. Other		9

Note: This option includes payments by debit cards (cash cards).

#### Supplementary Question 3:

What is the highest amount you have spent when purchasing goods or services on the Internet? Please circle the one best answer.

1. ¥1,000 or less	1	1
2. Between ¥1,001 and ¥3,000	2	2
3. Between ¥3,001 and ¥5,000	3	3
4. Between ¥5,001 and ¥10,000	4	4
5. Between ¥10,001 and ¥20,000	5	5
6. Between ¥20,001 and ¥50,000	6	6
7. Between ¥50,001 and ¥100,000	7	7
8. ¥100,001 or more	8	8
		-

С

В

А

А

5
6
7
8
9
Е
1
1
2
2 3
2 3 4
2 3 4 5

Е

D

D

#### The following questions are intended for all household members 6 and older.

#### Q3 Concerning use of social media

#### (1) To people who answered 6 to Question 2 (1) (i.e., people who use social media\*):

For what purposes do you use social media services? Please circle all answers that apply.

Note: Social media refers to information services in which one can communicate with multiple people

on the Internet including mixi, Facebook, GREE, Mobage, Twitter, and LINE.

1. To communicate with current friends
2. To find information on topics of interest
3. To find people who share the same interests or tastes / broaden social relationships
4. To announce my own information or creative work
5. To find people with the same concerns or problems
6. To engage in volunteering or community building activities
7. To gather or provide information during emergencies or disasters
8. To find old friends
9. To release stress
10. To kill time
11. To escape from reality
12. Other

	В	С	D	Е
	1	1	1	1
	2	2	2	2
	3	3	3	3
	4	4	4	4
	5	5	5	5
	6	6	6	6
	7	7	7	7
	8	8	8	8
	9	9	9	9
	10	10	10	10
	11	11	11	11
	12	12	12	12

С

С

Е

Е

#### (2) Which device or devices do you use to access social media services?

#### Please circle all answers that apply.

n add	ition, please <b>enter the number of devices that you have used primarily</b> .		5
	1. Computers	1	1
	2. Mobile phones (including PHS handsets)	2	2
	3. Smartphones	3	3
	4. Tablets	4	4
	5. Others (game consoles, etc.)	5	5
	Device that have used primarily (please enter one number.)		

#### (3) How often do you use social media services? Please circle the one best answer.

1. Use at least once a day
2. Use at least once a week (but not every day)
3. Use at least once a month (but not every week)
4. Use at least once a year (but not every month)

А	В	
1	1	
2	2	
3	3	
4	4	
5	5	
		1

В

A

А

5	
D	
1	
2	

D

#### Q4 Concerning the use of audio and video content

#### (1) To people who answered 9 or 10 to Question 2 (1):

Which services do you use?

#### Please circle all answers that apply.

		Λ	D
1. On-demand* video sharing services (such as YouTube and Niconico Douga)	]	1	1
2. Live-distribution* video sharing services (such as Ustream and Niconico Live)		2	2
3. On-demand broadcast program streaming services* (such as NHK On Demand)		3	3
4. Live-distribution broadcast program streaming services		4	4
5. Radio broadcast service (such as Radiko)		5	5
6. Others	]	6	6

#### (2) Which device or devices do you use to access the services you listed in (1) above?

#### Please circle all answers that apply. nh

In add	lition, please <b>enter the number of devices that you have used primarily</b> .
	1. Computers
	2. Mobile phones (including PHS handsets)
	3. Smartphones
	4. Tablets
	5. Others (game consoles, etc.)
	Device that have used primarily (please enter one number.)

Note: TV receivers (option 5) includes both digital TV receivers that connect directly to the Internet and the use of the Internet on the screen of a TV receiver via a recorder, tuner, or similar device.

#### (3) How often do you use the services you listed in (1) above? Please circle the one best answer.

1. Use at least once a day	
2. Use at least once a week (but not every day)	
3. Use at least once a month (but not every week)	
4. Use at least once a year (but not every month)	

#### (4) To people who answered 9 or 10 to Question 2 (1):

Why do you use these services over the Internet?

#### Please circle all answers that apply.

1. To watch videos by artists, etc., that I like	
2. To watch programs that I missed	
3. To watch popular / talked-about videos / programs	
4. To watch videos released only on a specific site	
5. Because I can watch when and where I want	
6. Because I don't have a radio or TV / I live in an area with poor reception	
7. Other	

А	В
1	1
2	2
3	3
4	4
5	5
6	6
7	7

	_			
А		В	С	D
1		1	1	1
2		2	2	2
3		3	3	3
4		4	4	4

1
2
3
4

Е

Е

С	D	
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	

## A B С

В

А

С

D	E	
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	

Е

D

#### The following questions are intended only for household members 12 and older.

#### Q5 Concerning use of smartphones and tablets

(1) To people (12 and older) who answered 4 or 5 to Question 1 (2) (i.e., smartphone or tablet users):

Have you taken security measures for using them? Please circle 1 if you have taken measure	res.				
Do you have security concerns for using them? Please circle 2 if you have concerns. <u>*To be answered only by people 12 and older</u>	А	В	С	D	Е
1. I have taken security measures.	1	1	1	1	1
2. I have security concerns.	2	2	2	2	2

Supplementary Question 1: To people (12 and older) who answered 2 in (1) above (i.e., people	who have	security	/ concern	c).	
What specific concerns do you have?		Scounty		<u>57</u> .	
Please circle all answers that apply. *To be answered only by people 12 and older	А	В	С	D	E
1. Loss or theft of device	1	1	1	1	1
2. Infection by a computer virus	2	2	2	2	2
3. Receive spam (not including fraudulent email)	3	3	3	3	3
4. Receive fraudulent email	4	4	4	4	4
5. Breach of personal information security (phone number, email address, location information, etc.)	5	5	5	5	5
6. Receive nuisance phone calls	6	6	6	6	6
7. Phishing	7	7	7	7	7
8. See ad displays or emails connected to Web browsing history	8	8	8	8	8
9. Other	9	9	9	9	9
Supplementary Question 2: To people (12 and older) who answered 1 in (1) above (i.e., people What specific security measures do you take?	who have	taken so	ecurity m	easures	<u></u> :
Please circle all answers that apply. <u>*To be answered only by people 12 and older</u>	A	В	С	D	E
1. Keep software updated to the latest version	1	1	1	1	1
2. Subscribe to security services provided by mobile telecom	2	2	2	2	2
3. Install anti-virus software	3	3	3	3	3
4. Take any measures against spam	4	4	4	4	4
5. Do not download from untrusted app stores	5	5	5	5	5
6. Download only apps whose terms of use I have read and agreed to	6	6	6	6	6
7. Set a password lock on my devices	7	7	7	7	7
8. Refrain from entering personal information	8	8	8	8	8
9. Do not connect to unknown Wi-Fi networks	9	9	9	9	9
10. Other	10	10	10	10	10
<ul> <li>(2) Have you experienced any of the following while using your smartphone or tablet?</li> </ul>					
Please <u>circle all answers that apply</u> .					_
*To be answered only by people 12 and older	A	В	C	D	E
1. Loss or theft of device	1	1	1	1	1
2. Infection by a computer virus	2	2	2	2	2
3. Receive spam (not including fraudulent email)	3	3	3	3	3
4. Receive fraudulent email	4	4	4	4	4
5. Breach of personal information security (phone number, email address, location information, etc.)	5	5	5	5	5
6. Receive nuisance phone calls	6	6	6	6	6
7. Phishing	7	7	7	7	7
8. See ad displays or emails connected to Web browsing history	8	8	8	8	8
9. Other	9	9	9	9	9
10. None of the above	10	10	10	10	10

**©** This completes the survey questions. Thank you for your participation.

Please confirm once again that the gender and ages of each household member have been entered on Page 7 of the survey form before sending in the form. Survey forms that do not include the gender and ages of each household member will be considered invalid. Please make sure to enter such information.

# <For Households> Glossary

Index	Term	Definition
	3G mobile phone	Digital mobile phones compliant with the IMT-2000 standard. Examples include NTT Docomo's FOMA series, AU's CDMA 2000 1x and CDMA 1x WIN series, and Softbank's SoftBank 3G series.
А	Access point	A radio-wave relay device that connects terminals via Wi-Fi network.
	App (application)	A software program used for a specific operational purpose, such as word-processing programs, spreadsheet programs, or image-editing programs.
	Authentication technology	A technology for verifying the proper identity of the target by some means. Examples include ID and passwords, fingerprint authentication, digital signatures, etc.
В	Blog	Short for Weblog. A blog is a regularly updated Website with sequential articles much like a diary and comments posted about articles.
	Broadband	Communication lines capable of high speeds and ultra-high speeds such as FTTH, DSL, and cable Internet.
	Broadcast program delivery service	A service by which the government, TV stations, or communication companies deliver programs via the Internet. Examples include the National Diet Internet feed and NHK's on-demand BeeTV.
	Browser	A software program for viewing Web pages.
	BWA	Short for Broadband Wireless Access. BWA is a generic name for data communication services that use wireless (radio waves) in place of cables to convey signals. Examples include mobile WiMAX (such as UQ WiMAX from UQ Communications) and AXGP from Wireless City Planning.
С	CATV	Refers to the application of cable TV cabling for Internet access.
	Chat	A service that allows the parties to have a text conversation simultaneously over a network. Because multiple parties converse simultaneously, the text from one party can be viewed by all parties.
	Computer virus	A program designed to damage or destroy a computer system. Computer viruses infect files via other files or email in order to reach and attack a computer system.
D	Digital TV broadcasting	A television broadcasting method that uses digital signals. It also refers to the broadcasting itself. Digital TV broadcasting can deliver very high quality broadcasts and it makes more efficient use of the radio spectrum than existing analog broadcasting. Digital TV broadcasting is distinctive for its easy connectivity with computers and other digital devices.
	DSL	Short for Digital Subscriber Line. DSL permits existing phone lines to be used for high-speed Internet access with technologies that enables high-speed transmissions over phone lines. Variants include ADSL, VDSL, HDSL, and SDSL.
	[reference] ADSL	Short for Asymmetric Digital Subscriber Line. ADSL is a transmission method that enables high-speed data communications on the order of several Mbps to tens of Mbps using copper subscriber phone lines running from central offices to homes or offices. ADSL has an asymmetric structure, in that the data transmission speeds are different depending on the direction (from the user's standpoint, sending data upstream and receiving data downstream).
E	E-learning	A form of learning using the Internet or other electromagnetic means. In a broad sense, e-learning is a kind of correspondence education. The advantages of e-learning include studying only the material necessary, real-time exchanges between the instructor and the students, and easy use of teaching materials including audio and video materials.
F	Filtering software	Software that assesses Web pages on the Internet according to set criteria and selectively blocks Web pages that are illegal or harmful.

Index	Term	Definition
	Firewall	Refers to a system to protect computers from unauthorized intrusions from external networks.
	Forum	A digital display board service. When a user posts a message to a forum, all members of the forum can view the message. Other members can post replies to the original message.
	Fraudulent email	A type of scam involving sending fraudulent invoices randomly by email and demanding payment, or email with similar fraudulent demands.
	FTP	Short for File Transfer Protocol. FTP is used to transfer files between the user's computer and a server or another host computer via the Internet. It is frequently used to download files from a file server to a client.
	FWA	Short for Fixed Wireless Access. FWA is a system that involves installing an antenna at the subscriber's premises to connect wirelessly with the telecom's base station antenna.
I	Illegal access	Refers to infiltrating a company or individual's computer system without permission and causing system failures or making use of the system without authorization.
	Information appliance	Household electric appliances such as refrigerators or air-conditioner units with connectivity to the Internet or other networks.
	Internet auction	A service that acts as an intermediary, in the form of an auction, between people wishing to buy and sell goods over the Internet.
	Internet banking, mobile banking	A service that provides bank transfers, balances, and other bank procedures via the Internet essentially 24 hours a day. Mobile banking services allow users to access the same banking procedures from mobile phones and other mobile devices via the Internet.
	IP phone	A voice call service that uses Internet protocol (IP) technology along some or all of its communication networks.
	IPTV	A service that delivers broadcast programming and other video content via an IP network.
	ISDN	Short for Integrated Service Digital Network. ISDN is a general name for a digital communication network that integrates telephone, fax, telex, data communications, and other services.
L	Live delivery	A method of delivering video or other content in real time. The viewing times are predetermined like TV broadcasts.
	LTE	Short for Long Term Evolution. Also called 4G, LTE is a mobile communication standard for high-speed data communications that succeeds the W-CDMA and HSPA standards. An example is Xi from NTT Docomo.
Μ	Microblog	Microblogs are a type of blog where posts from computers or mobile phones are limited to around 200 characters (usually called tweets). Also called miniblogs.
N	Narrowband	Low-speed communication lines with speeds generally less than 128 kbps. Examples include dial-up and ISDN.
	Net trading	Stock or currency trading done using the Internet. Also called online trading.
0	On demand	The provision of services in respond to requests by the listener or viewer. On-demand distribution allows users to view material when they want to view it.
	Online gaming	Games that use the Internet so that multiple players can share in the same game experience.
	Optical fiber (FTTH)	A data communication service capable of very fast transmission speeds that uses optical fiber. Optical fiber is a cable made from glass fibers that is used as the transmission path for optical communications.

Index	Term	Definition
	OS	Short for Operating System. This is the basic software of a computer system that manages the entire system and supplies I/O functionality, such as keyboard inputs and screen outputs, disk and memory functionality, and the basic functionality shared by many software applications that run on the computer system.
Ρ	P2P	Short for Peer to Peer. P2P is the sharing of files between many computers via the Internet.
	Personal digital assistant (PDA)	A computer smaller than a notebook with digital assistant functions to manage personal information, such as schedules, address books, and memos, and remote access functions to email, the Internet and local Wi-Fi networks via a mobile phone or PHS handset. The PDA category does not include notebook computers.
	Phishing	A type of fraud in which the attacker fakes emails from a real corporation or a real corporation's Website in order to get the victim to enter his or her PIN or password.
S	Smartphone	A mobile phone with the additional functionality of a personal portable information device. In addition to voice calls, smartphones can browse the Web, send and receive email, and view and create documents. Smartphones have open-source operating systems, and users are free to add apps as they like.
	Smart TV	A service centered on a television receiver with Internet access capability that obtains and displays Web information connected to the current program, that can run a wide variety of apps, and that can connect to smartphones and tablets from all manufacturers.
	SMS	Short for Short Message Service. SMS are services that send and receive short text messages and other information between mobile phones.
	Social media	Media where users create and distribute information, such as blogs, social networking sites, and video-sharing sites. Social media are distinctive in having various mechanisms to encourage users to connect with each other and to see connections visually.
	Social networking service (SNS)	A community site where participants introduce friends in order to extend new personal relationships. Some sites allow anyone to join and others require an introduction from a current member.
	SOHO	Short for Small Office/Home Office. SOHO is a work configuration in which a suburban home or small office is used as a work space using computer networks. SOHO also refers to this kind of work space.
	Spam	Email for promotional or advertising purposes sent to users without their consent.
	Spyware	Refers to a program that collects personal information on a computer, such as access logs, and sends the information to an external computer.
	SSL	Short for Secure Socket Layer. SSL is a protocol for encrypting and sending and receiving information over the Internet. SSL can be used for securely sending and receiving sensitive information, credit card numbers, or confidential company information.
Т	Tablet	A flat portable information device that has a touch LCD panel for its visual display and is operated by finger touches. Leading tablets are Apple's iPad and Amazon's Kindle.
	Telework	A flexible working arrangement using ICT that frees workers from time and location constraints. Telework can be divided into telework for employees of corporations (e.g., working from home, mobile working, or working at satellite offices) and telework for self-employed people or small businesses (e.g., SOHO or working from home).
	Tuner	A device, component, or an integrated circuit or circuit board (expansion card, etc.) containing the component for receiving broadcast signals.
V	Video posting and sharing site	A Website on the Internet that allows users to post videos and share them for other users to view. Examples include YouTube, Dailymotion, and Niconico Douga.

Index	Term	Definition
	VOD	Short for Video On Demand. VOD is a service that steams video content as instructed by the user.
W	Wearable devices	Information devices which can be worn and carried. Examples include the glasses type and the watch type.
	Wi-Fi network	A network on which data are send and received wirelessly. Wi-Fi networks consist of Wi-Fi access points, which correspond to the base unit, and Wi-Fi adaptors, which correspond to extension units (Wi-Fi adaptors are built into notebook computers and other devices).
	WPA, WPA2	Short for Wi-Fi Protected Access. WPA is an information security standard for Wi-Fi networks. It patches vulnerabilities in previous standards and strengthens the overall information security measures. WPA2 is an even more secure standard than WPA.

#### <For Businesses> Glossary

Index	Term	Definition
A	ASP	Short for Application Service Provider. An ASP is a business that provides customers with business applications over the Internet.
В	Banner ads	A banner ad is placed on a Website and has an image promoting another Website. Clicking on the banner ad takes the user to the banner's Website.
	BWA	Short for Broadband Wireless Access. BWA is a generic name for data communication services that use wireless (radio waves) in place of cables to convey signals. Examples include mobile WiMAX (such as UQ WiMAX from UQ Communications) and AXGP from Wireless City Planning.
С	Cable TV	Refers to the application of cable TV cabling for Internet access.
	CIO	Short for Chief Information Officer. A CIO is an executive officer who organizes and oversees information communication strategy and business strategy.
	Cloud computing	Cloud computing is a technology that provides, as a service, users with network-based computer assets when needed and in the amount needed via broadband or other Internet connection methods. An example is software as a service (SaaS) provided by application service providers (ASP).
	Computer virus	A program designed to damage or destroy a computer system. Computer viruses infect files via other files or email in order to reach and attack a computer system.
	Contactless IC card	An IC card with a built-in antenna that sends and receives data using weak radio waves emitted by an external reader. Data can be processed quickly just by bringing the IC card close to the reader. The operating principle is the same as RFIC tags.
	Content	An entire information unit or a portion of that information unit consisting of text, images, video, audio, games, etc. Content is often used to refer to information exchanged via digital media or networks.
	Contextual content ads	Contextual content ads automatically identify the keywords in a Website and what keywords are preferred by posting ad tags issued by the service operator in the Website.
	Contextual search ads	Ads displayed beside a search engine's search results that are linked to the search keywords entered by an ordinary user.
D	Direct marketing	A type of advertising that uses email sent to a specific user where the entire message is a form of advertising.
	DoS (DDoS)	DoS is short for Denial of Service. It is a type of attack where the attacker sends massive amounts of data to the target computer or router to disrupt the normal operation of the targeted business or organization's systems.
	DSL	Short for Digital Subscriber Line. DSL permits existing phone lines to be used for high-speed Internet access with technologies that enables high-speed transmissions over phone lines. Variants include ADSL, VDSL, HDSL, and SDSL.
Е	Email ads	Advertisements that use email addressed to a specific user
F	FTTH	Short for Fiber To The Home. FTTH offers ultra-high-speed Internet access of speeds from tens of Mbps to a maximum of 1 Gbps by installing fiber-optic cable all the way to the subscriber's home.

Index	Term	Definition
	FWA	Short for Fixed Wireless Access. FWA is a system that involves installing an antenna at the subscriber's premises to connect wirelessly with the telecom's base station antenna.
1	ICT (IT)	ICT is short for Information and Communication Technology. It is synonymous with IT.
	IDS	Short for Intrusion Detection System. An IDS monitors communication lines and notifies an administrator when it detects a network intrusion.
	Illegal access	Refers to infiltrating a company or individual's computer system without permission and causing system failures or making use of the system without authorization.
	Inter-company network	Refers to a communication network that connects to another or other companies.
	Internet VPN	A service that constructs a virtual private network over the public Internet.
	Intranet	Refers to a communication network on the same premises or a communication network between the head office and branch offices or work sites of the same company.
	IP-VPN	Short for Internet Protocol–Virtual Private Network. An IP-VPN is a service that constructs a virtual private communication network over the closed IP communication networks of a telecom. IP-VPNs allow remote networks to operate like LANs.
	ISDN	Short for Integrated Service Digital Network. ISDN is a general name for a digital communication network that integrates telephone, fax, telex, data communications, and other services.
L	Leased line	A communication service that directly connects a specific network segment with a line reserved for the client's sole use.
0	Optical fiber	A data communication service capable of very fast transmission speeds that uses optical fiber. Optical fiber is a cable made from glass fibers that is used as the transmission path for optical communications.
Ρ	Personal digital assistant (PDA)	A computer smaller than a notebook with digital assistant functions to manage personal information, such as schedules, address books, and memos, and remote access functions to email, the Internet and local Wi-Fi networks via a mobile phone or PHS handset. The PDA category does not include notebook computers.
	Picture ads	Banner ads mainly posted on the top page of a mobile site.
	PrivacyMark System	The PrivacyMark is a registered trademark that JIPDEC authorizes businesses to use if they meet certain conditions regarding personal information protection.
	Protocol	A protocol is a set of predetermined conventions that allows computers to communicate via a network.
	Proxy server	A proxy server is a computer placed at the boundary of the Internet and a corporate or other internal network. This computer connects to the Internet as a "proxy" for computers in the internal network that cannot directly access the Internet.
R	RFID tag	A tag containing an IC chip and antenna. The IC chip stores a unique identifier and other data that can be read by radio waves when in the proximity of a reader without the tag coming into physical contact with the reader.
	Rich media ads	Ads that use audio and images and either respond to mouse movements or display video with streaming technology.

Index	Term	Definition
S	SaaS	Short for Software as a Service. SaaS is a mechanism that provides the functions of software applications to customers as needed over a network.
	Satellite link	A configuration that uses links with a communication satellite to provide Internet access. The advantage of satellite Internet is that it is unaffected by disasters that knock out mobile phones or normal Internet access methods.
	Security patch	A program distributed to repair another software program when a security hole is discovered in the program.
	Social media	Media where users create and distribute information, such as blogs, social networking sites, and video-sharing sites. Social media are distinctive in having various mechanisms to encourage users to connect with each other and to see connections visually.
	Spam	Email sent in massive volumes indiscriminately without regard for any attribute the recipients. Spam has become a problem because of the traffic it places on the public Internet.
	SPF	Short for Sender Policy Framework. SPF is a technology that prevents falsification of an email sender's address.
	Sponsored ads	The provision by a specific advertiser of some or all of a Website's content
Т	Targeted email	Unlike spam that is sent to random recipients, targeted email, which often has virus attachments, is sent to a specific organization or person with the objective of stealing confidential information.
	TCP/IP	The communication protocol used on the Internet.
	Telework	Telework is a working arrangement where the worker works in a location physically separate from the company's building but with nearly the same work environment as in the company's building by means of communication networks. Depending on the worker's work location, telework is called working from home, mobile work (where the worker, such as a salesperson, works using a mobile information device while out of the office), or satellite office (where the worker works at an office that is not the company's office).
	Text ads	Ads that consist entirely of text
V	VoIP / IP phone	A voice call service that uses Internet protocol (IP) technology along some or all of its communication networks.
W	Wide-area Ethernet	A wide-area network service constructed by combining switching hubs using Ethernet, a LAN standard.
Х	XDSL	DSL is short for Digital Subscriber Line. DSL permits existing phone lines to be used for high-speed Internet access with technologies that enables high-speed transmissions over phone lines. Variants include ADSL, VDSL, HDSL, and SDSL. XDSL is a general term for all DSL variants.