

(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 **indicate the number of devices you own**. If you do not own such a device, please mark **"None" with a circle**. For devices 1 through 3, please **indicate the number of Internet-connected devices you own**.
 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.

1. Use Wi-Fi	3. Do not use Wi-Fi, and have no plans to install Wi-Fi
2. 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,* **sending by an address without @** 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
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Please go to Question 6 on Page 5.

(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) 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)	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: If you use ISDN over an optical fiber connection, please circle 3 "Optical fiber (FTTH)."
- Note 2: Circle 7 or 8 **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.

<p>○Wired:</p> <ul style="list-style-type: none"> 1. DSL* 2. Cable TV (CATV)* 3. Optical fiber (FTTH)* 4. Fixed wireless access (FWA)* 5. Telephone (dial-up) 6. ISDN* ^{Note 1} 	<p>○Wi-Fi:</p> <ul style="list-style-type: none"> 7. Mobile phone (LTE*, BWA*) (such as an iPhone 5 or newer model, whose service is named "4G," "Xi," or "WiMAX")^{Note 2} 8. Mobile phone (other than 7; such as an iPhone up to iPhone 4S, whose service is named "3G" or "FOMA")^{Note 2} <hr/> <p>●Others</p> <ul style="list-style-type: none"> 9. Other 10. No Internet connection
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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) and which used any of the following devices:

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 7** if you have not suffered any losses.

	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
3. Received spam / fraudulent emails*	3	3	3	3
4. Phishing* ^{Note 1}	4	4	4	4
5. Illegal access* ^{Note 2}	5	5	5	5
6. Other (personal information security breach, defamation, etc.)	6	6	6	6
7. No losses	7	7	7	7

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).

► **To households that answered 3 above (i.e., households who received spam or fraudulent email):**

Supplementary Question: **How frequently did you receive spam or fraudulent emails?**

Please **circle the one best answer** for each access device.

	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

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**.

- | | | |
|--------|-------|---|
| 1. Yes | 2. No | 3. Don't know whether the measures have been taken or not |
|--------|-------|---|

Supplementary Question: **To households that answered 1 above (i.e., households that have taken measures):**

What measures have you taken against viruses or illegal access in the past year?

Please **circle all answers that apply**.

- | |
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| <ol style="list-style-type: none">1. Installed or updated a security program2. Signed up to or updated a security service from a provider or mobile telecom3. Set a password on devices to prevent illegal access from outside or illegal use by outsiders4. Did not connect to the Internet using an unknown or unsecured source5. Set an administrator to check for changing the setting of device or installing suspicious software6. Other measures |
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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 **concerns** 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: **To households that answered 1 or 2 (i.e., households that answered they are concerned or somewhat concerned):** What specific concerns do you have?

Please **circle all answers that apply**.

- | |
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| <ol style="list-style-type: none">1. Concern about leak of personal information and internet use history2. Concern about the reliability of electronic payment means3. Concern about unknowing breach of intellectual property rights of others such as copyrights4. Concern about computer virus infections5. Concern about the reliability of authentication technology*6. Concern about a flood of illegal or harmful information7. Unclear how far to take security measures8. Concern about whether I understand security threats properly9. Concern about trouble with communication on social media*, etc.10. Concern about myself or people close to me becoming an Internet addict11. Concern about fraudulent email or fraud using the Internet12. Concern about receiving spam13. Other |
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Q6 Concerning Internet use by children under 18

(1) Do you have **a child under 18** in your household? Please **circle the answer that applies**.

1. Yes	2. No
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(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.

	Internet use by children under 18 (Circle the one best answer for each device)		Filtering services or filtering software		
			Have used	Have not used	Don't know whether having used
Computer	Yes	No	1	2	3
Mobile phone	Yes	No	1	2	3
Smartphone	Yes	No	1	2	3
Tablet	Yes	No	1	2	3
Game console	Yes	No	1	2	3

(3) Concerning use of filtering software or services above (2),

To **households that answered 2** for any device:

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

- | |
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| <ol style="list-style-type: none"> 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 |
|--|



Confidential

Please respond to the survey by February 19, 2016.

Government

Ministry of Internal Affairs and Communications

2015 Communications Usage Trend Survey Form <<For Businesses>>

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.

(affix address label here)	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, 2015, except where noted otherwise.
- 2 Submit the completed survey to: ICT Economic Research Office, ICT Strategy Policy Division, Global ICT Strategy Bureau, Ministry of Internal Affairs and Communications
2nd Bldg. of the Central Common Government Office, 2-1-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8786, Japan
* 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:
"Communications Usage Trend Survey" Secretariat,
KCCS Mobile Engineering Co.,Ltd.
MITA 43 MT BUILDING. 3-13-16 Mita, Minato-ku, Tokyo 108-0073, Japan
Tel.: 0800-170-7772 (toll free) (Between 09:30 and 17:00)
e-mail: soumushou_chousa@kcme.jp
- 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 Please answer questions about Internet connection at your company

(1) What **Internet access connection or connections** does your company have? Please **circle all answers that apply**.

Circle 10 if your company does not have Internet access.

1. Telephone (dial-up)	5. Fixed wireless access (FWA)*	9. Other
2. ISDN* <small>Note</small>	6. BWA access service*	10. No Internet access
3. Cable TV*	7. DSL*	
4. Optical fiber* (FTTH)	8. Leased line	

Note: If you use ISDN over an optical fiber connection, please circle 4 "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**.

<input type="radio"/> 1. Yes	<input type="radio"/> 2. No
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Supplementary Question: To companies that have a Website: What is the purpose or application of your Website?

Please **circle all answers that apply**.

1. Publicize / promote products or events	4. Accept applications or notifications	7. Collect consumers' ratings and opinions
2. Provide periodic information	5. Conduct questionnaires	8. Other
3. Company profile / recruiting	6. Electronic public notices and financial statements	

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

<input type="radio"/> 1. Yes	<input type="radio"/> 2. No
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Supplementary Question: To companies that use social media services: For what purpose or application do you use social media?

Please **circle all answers that apply**.

1. Marketing	4. Company profile / recruiting
2. Publicize / promote products or events	5. Collect consumers' ratings and opinions
3. Provide periodic information	6. Other

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

(1) Does your company **use the Internet**^{Note} **to make purchases or sales**? Please **circle all answers that apply**.

1. Make purchases from other companies over the Internet	}	3. Sell to consumers over the Internet (with services intended for computers)	5. None of the above
2. Sell to other companies over the Internet		4. Sell to consumers over the Internet (with services intended for mobile phones or smartphones)	

Note: This question includes both purchases made over the public Internet and purchases made over TCP/IP (the communication protocol used on the Internet*) networks, such as TCP/IP leased lines*.

Supplementary Question: To **companies that sell to consumers over the Internet**:

Which model or models do you use to 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* ^{Note 2}	10. Content* ads
3. Rich media ads* ^{Note 3}	11. Email ads*
4. Sponsored ads* (editorial tie-ups, etc.)	(Other forms of advertising)
5. Contextual search ads*	12. Other Internet ads
6. Contextual content ads* ^{Note 4}	
(Email advertising)	
7. Newsletters	
8. Direct marketing ads* (targeted mailings, etc.)	13. Do not use Internet advertising

Note 1: *Text ads* are ads composed only of text.

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. 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	Introduction
① RFID tags* Ex: Production, inventory, or distribution management by means of identifying items	1. Adopted 2. Not adopted
② Contactless IC cards* Ex: Room access controls and cashless transactions by means of personal authentication	1. Adopted 2. Not adopted
③ New network-enabled devices (network cameras, sensors, etc.) Ex: Security systems using network cameras or motion sensors	1. Adopted 2. Not adopted
④ GPS, mobile phone, or other location devices Ex: Traffic management based on vehicle location information	1. Adopted 2. Not adopted

Supplementary question: to companies **that have adopted systems or tools using wireless communication technology**.
 Do you **analyze information collected** through your system or tool and use the results for purposes such as product development and marketing? Please **circle the one best answer**.

1. Using	2. Not using but planning to use	3. Neither using nor planning to use
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Q5 The following questions concern your company's use of cloud computing.*

(1) Does your company use cloud computing (the cloud)^{Note?} Please **circle the one best answer**.

1. Used company wide	3. Not used, but plan to use
2. Used by some offices or divisions	4. Not used, and have no plans to use
	5. Do not understand cloud services

Note: 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).

→ (2) To companies that answered either 1 or 2 to (1) above:
Which device or devices does your company use to access cloud services?
 Please **circle all answers that apply**.

1. Mobile phones ^{Note} / PHS handsets	3. Tablets	5. Other (PDAs*, etc.)
2. Smartphones ^{Note}	4. Computers	

Note: Please give separate answers for conventional mobile 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 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 management, store management
4. Internal information sharing / portal	11. System development and Website construction	17. Billing and payment systems
5. Email	12. e-Learning	18. Authentication systems
6. Schedule sharing	13. Payroll, financial accounting, HR	19. Other
7. Project management		

→ (4) To companies that answered either 1 or 2 to (1) above:
 Why do you use cloud computing services? Please **circle all answers that apply**.

1. Costs are lower than existing systems	9. Boost security against information theft, etc.
2. Initial investment is inexpensive	10. Improve operational stability and availability
3. No need to have internal asset and storage systems	11. Wealth of service options
4. Quick response capability, such as upgrading system capacity	12. Fast roll-out speed
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 given above? 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	

→ (6) To companies that answered 4 to (1) above:
 Why does your company not use cloud computing services? Please **circle all answers that apply**.

1. Considerable cost to retool existing systems when introducing cloud services	6. Information theft and other security concerns
2. Cloud services would hinder corporate compliance	7. No legal system in place
3. Increase in communication costs	8. Not necessary
4. Cannot customize applications to suit needs	9. Do not see the advantages, not convinced by the advantages
5. Concerns about network stability	10. Other

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.)

<p>1. Have introduced telework (a Working from home b Satellite office work c Mobile work) (Please answer questions (1), (2), and (3) below)</p>	<p>3. Not introduced, and have no specific plans to introduce telework (Please answer question (4) below)</p>
<p>2. Not introduced, but have specific plans to introduce telework</p>	

Note: *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, **satellite office work (where the worker works at an office that is not the original work place)**, 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.

→ (1) **What percentage of your employees use telework?** Please **circle the one best answer**.

1. Less than 5 percent	3. 10 percent to less than 30 percent	5. 50 percent to less than 80 percent
2. 5 percent to less than 10 percent	4. 30 percent to less than 50 percent	6. 80 percent or more

→ (2) **What were the purposes of introducing telework** at your company?
Please **circle all answers that apply**.

1. Raise efficiency (productivity) of routine business processes	8. Support people who have difficulty using public transportation (physically disabled, older people, pregnant women, etc.)
2. Improve creativity of creative, value-added business processes	9. Counter global warming by lowering CO2 emissions through transportation alternatives
3. Provide healthy, comfortable lives for workers	10. Conserve energy and electricity
4. Reduce office costs	11. Prepare for business continuity in the event of emergencies (earthquakes, super-flu outbreaks, etc.)
5. Reduce workers' travel times	12. Other
6. Increase customer satisfaction	
7. Attract better employees	

→ (3) What has been the overall impact of telework on the purposes given in (2) above?
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	

→ (4) To companies that have not introduced telework; i.e., answered 3 to the question above.
Please **circle all reasons** why you have not introduced telework?
If you circle 14 "Other," please give a specific reason in the space provided.

1. Work is not suited to telework	9. Impedes handling customers and other external entities
2. Difficult to advance work operations	10. Too expensive
3. Do not see the advantage of introducing telework	11. Troublesome to introduce an HR system
4. Difficult to assess employees	12. Difficult to calculate wages
5. Impedes office / internal communications	13. Have not moved to digital documents
6. Shifts burden to other employees	14. Other
7. No requests from union or employees	()
8. Concern about information security breaches	

Q7 The following question concerns all ICT^{Note} 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 **circle all answers that apply**.

- | | |
|--|--|
| 1. Internal ICT education / training programs | 5. Provide time to employees who voluntarily enroll in ICT courses |
| 2. External ICT education / training programs | 6. Test ICT abilities and skills |
| 3. Provide financial assistance to employees who voluntarily enroll in ICT courses | 7. Other education and training |
| 4. Pay bonuses to employees who obtain ICT qualifications | 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 occurred in the past year in the use of ICT networks at your company?
Please **circle all answers that apply**. **Circle 10 if no security breaches occurred**.

- | | |
|---|---|
| 1. Have received targeted emails* ^{Note 1} | 6. DoS (DDoS) attack* ^{Note 3} |
| 2. Discovered a computer virus* but not infected | 7. Website defacement |
| 3. Discovered a computer virus and at least one incidence of an infection | 8. Data breach due to theft or negligence |
| 4. Illegal access* ^{Note 2} | 9. Other losses |
| 5. Used as a spam* bot or zombie | 10. No breaches |

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.

Note 2: *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 3: *DoS attack* is an attack where the attacker sends massive amounts of packets to a server to bring down a system or disrupt services.

Supplementary Question: To companies that answered 1 to (1) above:

What happened **as a result of receiving targeted emails**? Please **circle the one best answer**.

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|--|
| 1. Targeted emails reached an employee's device and there was at least one incidence of a computer virus infection |
| 2. Targeted emails reached an employee's device, but there were no computer virus infections |
| 3. Anti-virus programs and other measures blocked all targeted emails before reaching any device |

(2) **What measures** has your company taken **for data security and anti-virus protection on ICT networks?**
 Please **circle all answers**^{Note 1} **that apply.**

- | | |
|--|---|
| 1. Establish security policies | 12. User authentication by means of authentication technologies |
| 2. Security audits | 13. Encrypt data or networks |
| 3. Outsource security management | 14. Line monitoring |
| 4. Training for employees | 15. Install and maintain firewalls |
| 5. Install anti-virus programs on computers and other devices (operating system, software, etc.) | 16. Use proxy servers*, etc. |
| 6. Install anti-virus programs on servers | 17. Install and maintain intrusion detection systems (IDS)* ^{Note 2} |
| 7. Apply security patches* for operating systems | 18. Install and maintain Web application firewalls |
| 8. Construct anti-virus walls at external access points | 19. Other measures |
| 9. Establish manuals on responding to viruses | 20. No particular measures |
| 10. Control access with IDs, passwords, etc. | |
| 11. Maintain access logs | |

Note 1: Regardless of your answer to 3. "Outsource security management", circle all applicable answers even if the measures are implemented in part with the use of external suppliers or external services.

Note 2: Includes intrusion protection systems (IPS).

Supplementary Question 1: To companies that answered 1 to (2) above:
 Does your company's security policies have **rules on the use of smartphones in work operations?**
 Please **circle the one best answer.**

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|---|--|
| 1. Prohibit all use | 4. Permit the use of both company-supplied smartphones and personal smartphone |
| 2. Permit use of only company-supplied smartphones | 5. Have no specific rules |
| 3. Permit use of personal smartphones for work operations | |

Supplementary Question 2: To companies that answered 1 to (2) above:
 Does your company's security policies have **rules on the use of social media?**
 Please **circle all answers that apply.**

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|---|-----------------------------|
| 1. Prohibit opening accounts with company name | 4. Prohibit use during work |
| 2. Obligated to open accounts with company name | 5. Other rules |
| 3. Prohibit work-related posts | 6. Have no specific rules |

(3) **What measures** has your company taken **against targeted email**?

Please **circle all answers that apply**.

- | | |
|--|--|
| 1. Training for employees | 8. Line monitoring |
| 2. Install anti-virus programs on computers and other devices (operating system, software, etc.) | 9. Use proxy servers,* etc. |
| 3. Install anti-virus programs on servers | 10. Install and maintain intrusion detection systems (IDS) ^{Note} |
| 4. Apply security patches for operating systems | 11. Share information between organizations and divisions |
| 5. Construct anti-virus walls at external access points | 12. Install a sender policy framework (SPF)* |
| 6. Enhance access controls for servers and other devices that store sensitive data | 13. Other measures |
| 7. Maintain access logs | 14. No particular measures |

Note: Includes intrusion protection systems (IPS).

(4) **What measures** has your company taken **for personal information protection**?

Please **circle all answers that apply**.

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|---|---|
| 1. Obtained Privacy Mark certification* | 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 | |

(5) Does your company have a chief information officer (CIO)* ^{Note?}

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. Do not have a CIO |

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?

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 | 10. Concern about the reliability of electronic payments |
| 4. Difficulties in restoring operations after a fault | 11. Low security awareness among employees |
| 5. Concern about protection of copyrights and intellectual property | 12. High communication charges |
| 6. Concern about virus infections | 13. Low communication speeds |
| 7. Difficulties in achieving benefits from network adoption | 14. Other |
| | 15. No particular issues |

<For Households> Glossary

Index	Term	Definition
A	Access point	A radio-wave relay device that connects terminals via Wi-Fi network.
	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.
B	Blog	Short for Weblog. A blog is a regularly updated Website with sequential articles much like a diary and comments posted about articles.
	Broadcast program delivery service	A service by which TV stations, or communication companies deliver programs via the Internet.
	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.
C	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).
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.
	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.

Index	Term	Definition
	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.
	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.
O	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.
P	P2P	Short for Peer to Peer. P2P is the sharing of files between many computers via the Internet.
	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.
	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)	Services that create social networks through exchanges via the Internet. Representative services include Facebook, Twitter and LINE.
	Spam	Email for promotional or advertising purposes sent to users without their consent.
	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.
T	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 Samsung's Galaxy Tab.
	Tuner	A device, component, or an integrated circuit or circuit board (expansion card, etc.) containing the component for receiving broadcast signals.

Index	Term	Definition
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.
	VOD	Short for Video On Demand. VOD is a service that streams 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.

<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.
B	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.
C	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.
	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.
F	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	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.

Index	Term	Definition
	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.
	Inter-company network	Refers to a communication network that connects to another or other companies.
	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.
O	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.
P	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.
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.
	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

Index	Term	Definition
T	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.
	Telework	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).