

Common Standards for Cybersecurity
Measures for
Government Agencies and Related Agencies
(FY2021)

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Chapter 1 General Provisions

1.1 Purpose and Scope of these Common Standards for Measures

(1) Purpose of these Standards

The basic principal of information security is to ensure “confidentiality”, “integrity”, and “availability” of the information handled by Agencies according to the degree of importance of information, and it is a fundamental responsibility for each government agency to duly implement measures to ensure information security. However, under the current circumstances where the Agencies use and share the common IT environment as well as information, it is necessary to formulate a unified framework to raise the level of information security standards across the agencies.

These Common Standards constitute information security measures deemed necessary in a shared manner across all of the Agencies. Their purpose is to strive to uniformly raise the level of information security of Agencies by regulating matters that the Agencies must comply with for each information security measure (hereinafter referred to as “requirements”) as necessary conditions for implementing the Common Model within the common framework for Agencies in accordance with the Common Model of Cybersecurity Measures for Agencies (established by the Cybersecurity Strategic Headquarters).

(2) Scope of these Standards

(a) These Standards shall apply to all employees engaged in administrative services at Agencies.

(b) These Standards shall apply to the information defined below:

(i) Information recorded on the systems for providing information processing or communication, or on external electromagnetic recording media procured or developed by the Agencies to be used by employees to perform their duties (including information described on a paper outputted from the said system or information inputted into information system).

(ii) Information for use of employees, recorded on other information systems or other external storage media (including the information printed out from, or input in the system).

(iii) In addition to (i) and (ii), information concerning the design or operational management of the system procured or developed by Agencies.

(c) These Standards shall apply to all information systems which process the information stipulated herein.

(3) Revisions of these Standards

It is important to precisely understand changes in circumstances and accordingly review information security measures to maintain an appropriate level of information security. Therefore, these Standards shall be regularly reviewed and necessary additions and amendments shall be made according to information technology development.

(4) Compliance with laws and regulations

When taking information security measures, laws and regulations which stipulate handling of information and information systems (hereinafter referred to as “relevant laws and regulations”) should be respected in addition to these standards. These Standards provide no reference to such relevant laws and regulations, as they should be respected regardless of information security measures. Equally the government's resolutions set forth in response to changing environment of information security should be duly observed.

(5) Contents of the measures

In these Common Standards, measures to be implemented by Agencies are classified into three layers, namely chapters, sections, and items according to the purpose, with the purposes, general intent, and requirements specified for each item.

The Guidelines for Establishing Agencies’ Standards for Information Security Measures formulated separately by the NISC enumerate basic measures that must be taken in order to meet the requirements of the Common Standards (hereinafter referred to as “basic measures”), while also offering explanations of the approaches for formulating and implementing standards. Since the basic measures comply with the requirements, Agencies must meet the corresponding requirements by taking the measures enumerated in the basic measures or measures that are equal to or greater than these.

In addition, Agencies must set in place implementation procedures to implement measures prescribed in the standards they formulated.

1.2 Classification of Information and Handling Restrictions

(1) Classification of information

These Standards classify information in three aspects namely confidentiality, integrity, and availability, whose definitions are shown below.

When changing or adding the definitions of classifications at Agencies, each Agency must handle information categorized according to the definitions below via a level of security established in the requirements of these Common Standards or an equal or greater level of security. When providing information to other Agencies, Agencies must ensure that they appropriately communicate regarding the classifications set forth in their own standards, as well as responses for the classifications in these Common Standards.

Classifications for confidentiality

Classification	Classification criteria
Confidentiality class-3 information	Among information handled as part of the work of national administrative organs, information required to be handled as confidential documents prescribed in the Guidelines for

	<p>Management of Administrative Documents (decided by the Prime Minister, on April 1, 2011; hereinafter referred to as "Document Management Guidelines")</p> <p>Among information handled as part of the work of Incorporated Administrative Agencies and Designated Corporations, information corresponding to the above</p>
Confidentiality class-2 information	<p>Among information handled as part of the work of national administrative organs, except for Confidentiality class-3 information, items which include information with high probability of being regarded as Non-Disclosure Information stipulated in Article 5 of the Act on Access to Information Held by Administrative Organs (Act No. 42 of 1999; hereinafter referred to as "Information Disclosure Act").</p> <p>Among information handled as part of the work of Incorporated Administrative Agencies, except for confidentiality class-3 information, items which include information with high probability of being regarded as Non-Disclosure Information in each item of Article 5 of the Act on the Protection of Personal Information Held by Incorporated Administrative Agencies, etc. (Act No. 140 of 2001; hereinafter referred to as the "Incorporated Administrative Agencies, etc. Information Disclosure Act"). Moreover, the same shall apply to those Designated Corporations that are listed in Appendix I of the Incorporated Administrative Agencies, etc. Information Disclosure Act (hereinafter referred to as "Designated Corporations listed in the appendix").</p> <p>Among information handled as part of the work of Designated Corporations other than Designated Corporations listed in the appendix, information corresponding to the above.</p>
Confidentiality class-1 information	<p>Among information handled as part of the work of national administrative organs, information which does not include items which should be regarded as Non-Disclosure Information stipulated in each paragraph of Article 5 of the Information Disclosure Act.</p> <p>Among information handled as part of the work of Incorporated Administrative Agencies or Designated Corporations listed in the appendix, information which does not include items which should be regarded as Non-Disclosure Information stipulated in each paragraph of Article 5 of the Information Disclosure Act.</p> <p>Among information handled as part of the work of Designated Corporations other than Designated Corporations listed in the appendix, information corresponding to the above.</p>

Information which comes under Confidentiality class-2 information and Confidentiality class-3 information is called "confidential information".

Classifications for integrity

Classification	Classification criteria
Integrity class-2 information	Among information for administrative use (except for written information), items whose manipulation, errors, and damage may infringe citizens' rights or hamper proper administrative operations (except for negligible cases).
Integrity class-1 information	Information other than Integrity class-2 information (except for written information)

Note that Integrity class-2 is called “critical information”.

Classifications for availability

Classification	Classification criteria
Availability class-2 information	Among information for administrative use (except for written information), items whose disappearance, loss, or unavailability may infringe citizens' rights or stable administrative operations (except for negligible cases).
Availability class-1 information	Information other than Integrity class-2 information (except written information.)

Note that Availability class-2 information is called “vital information”.

Also, information classified as any of confidential information, critical information, or vital information is called “classified information”.

(2) Types of handling restrictions

“Handling restrictions” means restrictions to ensure proper handling of information by employees, such as to prohibit copying, removing, and distributing information, as well as mandatory encryption and disposal of the data after use.

The employees should appropriately handle the information according to its classification, and follow the types of handling restrictions to demonstrate proper and practical handling of the information. Agencies should set forth the basic definitions of handling restrictions from perspectives of three aspects, namely confidentiality, integrity, and availability.

1.3 Definition of Terms

[A]

- “Applications and contents” means a collective term for application programs, web contents and so forth.
- “Areas requiring control measures” means areas under the control of the Agencies (including facilities leased by said Agency from external Agencies), where control measures for the facilities and work environment are required to protect information handled.

[C]

- “Cloud services” means a capabilities which is offered via a paradigm for enabling network access to scalable and elastic pool of shareable physical or virtual resource with self-service provisioning and administration on-demand, by the provider-defined interface, and is flexible about setting of information security condition adequately.
- “Common platform system” means information systems shared by multiple agencies, excluding such information systems whose entire operations including hardware and software are controlled and managed by a single agency.
- “Communication line” means mechanisms for transmitting and receiving information among several information systems, and also among several equipment (including devices not purchased by Agencies), as well as between information systems and equipment, using prescribed communication protocol. Unless otherwise specified, it is a generic term referring to the communication lines used for information systems at Agencies. Communication line includes the one which is not directly managed by Agencies and also includes all connections regardless of their types (such as wire or wireless, physical or virtual).
- “Communication line equipment” means a device which connects communication lines, as well as communication lines and information systems, and controls information transmitted and received over these lines. Communication line equipment includes hubs, switches, routers, and firewalls.
- “Communication line inside the Agencies” means a communication line used for communication between the server equipment and terminals managed by an Agency, which has no logical connection with the server equipment and terminals not being managed by said Agency. Communication lines inside the Agency also include those physical lines that are not managed by the Agency, such as proprietary lines and VPNs.
- “Communication line outside the Agency” means a communication line other than “Communication line inside the Agency”.
- “Subcontracting” means subcontracting part or all of tasks of an Agency, including all forms of agreement such as “mandate,” “quasi-mandate,” or “contract”; however, only when the Agency’s information is handled in those tasks.
- “Cryptographic erasure” means a logical deletion method that disables decryption of information encrypted and recorded on an electromagnetic recording medium by erasing the key used to decrypt the information and makes the information unavailable when information erasure is required. Examples of encryption features used for cryptographic erasure include

encryption by software (Windows's BitLocker, etc.), and encryption by hardware (Self-Encryption Drive, etc.).

- “CSIRT” means a system established at Agencies to respond to information security incidents which occur therein. An acronym for Computer Security Incident Response Team.
- “CYMAT” means a system established in the National center of Incident readiness and Strategy for Cybersecurity which provides proactive support for information security incidents which require unified actions with the government, in the event of, or fear of information security failure at Agencies due to cyber-attacks and so forth. An acronym for Cyber Incident Mobile Assistance Team (information security emergency support team).

[E]

- “Employees” means legal employees such as government officials engaged in administrative work at national administrative organs, executives of Incorporated Administrative Agencies and Designated Corporations engaged in the work of said Agencies, and other people serving under the supervision of other Agencies who handle information and information systems managed by the Agencies. Employees also include dispatched workers and trainees accepted temporarily, though it depends on individual work conditions.
- “Equipment, etc.” means a collective term for information systems components (such as servers, terminals, communication line equipment, multiple function devices and other apparatus for specified purposes, and software), as well as external storage media.
- “Equipment for specific purposes” means information system components for specific purposes as in the systems for TV conference, IP phones, network cameras, entry control systems, facility management systems, environment monitoring systems, and so forth, which are connected to communication lines or equipped with built-in electromagnetic recording media.
- “Erasure” -> See “Information erasure”
- “External service” means a service through which any person other than Agencies provides the general public with part or all of information system functions; however, only when information on Agencies is handled in those functions.
- “External service administrator” means a person engaging in the management of an external service as designated by the person authorized to permit use applications when approval is given for the use of the external service.
- “External service provider” means an operator providing an external service. An operator providing Agencies with its own service by using an external service is not included.
- “External service users” mean employees of Agencies who use an external service, or in cases of subcontracting, employees of a subcontractor when the external service is used by the subcontractor.

[G]

- “Government agency’s own standards” means standards for information security measures to ensure information security of information and systems at Agencies.
- “Government domain name” means a domain name ending with “.go.jp.” Government agencies, Incorporated Administrative Agencies, and special corporations (except for special companies) may register (acquire) this domain name.

[I]

- “Implementation procedures” means practical procedures need to be determined beforehand to implement the measures prescribed in the standards for measures for individual information systems and tasks of Agencies.
- “Information” means the information set forth in 1.1. (2) (b) of these Standards.
- “Information erasure” means to make all the information recorded in external storage media unusable and unrestoreable. Erasing information shall mean deletion of information as well as cryptographic erasure using a cryptographic algorithm whose safety is confirmed by Cryptography Research and Evaluation Committees (CRYPTREC) and physical destruction of the storage media containing the information. If the information can be recovered by revoking deletion or using a recovery tool, it cannot be referred to as “Information erasure”.
- “Information security rules” is a collective term for all standards for measures and operational procedures implemented by Agencies.
- “Information security incidents” means information security incidents set forth in JIS Q 27000:2019.
- “Information security measure promotion structures” mean structures established within the Agencies in order to perform duties related to promoting the information security measures of the Agencies in question.
- “Information system” means systems consist of hardware and software (including those managed by outsourcing subcontractors), which are used for information processing or communications, and developed and procured by Agencies unless otherwise specified.

[L]

- “Labeling, etc.” means a measure to make information's classification clear to all who handle the information. This means to display the classification of information and any other actions to make the information classification a common knowledge. One of the examples of such measure is, to indicate the classifications of information recorded in a specific information system by describing them in regulations, and to make them known to all the users of said system.

[M]

- “Malware” (a short form for malicious programs or software) means software in general which causes unsolicited results to information systems such as computer viruses, worms (not parasitic

but self-replicating program), and spywares (program which collects various information against users' will).

- “Mobile terminal” means, regardless of its type, a terminal designed to be carried around according to users' business needs.

【N】

- “National administrative organs” collectively refers to organizations stipulated by law and established within or under jurisdiction of the Cabinet, the Imperial Household Agency, organizations stipulated in Article 49 Paragraph (1) or (2) of the Act for Establishment of the Cabinet Office (Act No. 89 of 1999), organizations stipulated in Article 3 Paragraph (2) of the National Government Organization Act (Act No. 120 of 1948), or other organizations which fall under these organizations.

【S】

- “Server equipment” means the components of information system which provide own services to terminals and other devices getting access to it via communication lines and other means (including components such as pre-loaded software, built-in mouse and keyboard), and unless otherwise specified those procured or developed by Agencies.
- “Storage media” means media in which information is recorded or written. Storage media includes written document, and any paper or other tangible objects on which human-recognizable information such as characters or diagrams are written (hereinafter referred to as “hardcopies”), and those on which information unrecognizable by human is recorded electronically or magnetically, and are processed by computers (hereinafter referred to as “electronic or magnetic data”, “external storage media”, respectively). The external storage media can be internal storage media built into server equipment, terminals, and communication equipment, or external storage media such as USB memories, external HDDs, and DVD-Rs.

【T】

- “Teleworking” means a flexible work style that enables employees to effectively use any place or time to work by making use of information and communication technology (ICT). The forms of teleworking are categorized into the following according to the workplace: remote work through which employees work at home; satellite office work through which employees work in any working environment other than their main working government offices; and mobile work through which employees work during transportation or places where they are staying by making use of items such as mobile devices.
- “Terminal” means the equipment of information system component, which employees directly operate to perform information processing (including installed software and peripheral devices such as keyboard and mouse directly connected and treated as an integral part of the equipment), and unless otherwise specified those procured or developed by the Agencies. “Terminal” also means mobile terminals. In particular, otherwise specified case examples would include “non-

Agency-furnished terminals”, which indicate terminals that were neither procured nor developed by the Agency. In addition, both terminals procured or developed by Agencies and non-Agency-furnished terminals are collectively referred to as “terminals (including non-provided terminals).”

【W】

- “Web conference services” means an external service through which participants are able to meet without colocation using pictures or sounds by the use of a dedicated application or web browser. A service through which communication between special purpose devices takes place (such as a video conference system) is not included.

Chapter 2 Basic Framework of Information Security Measures

2.1 Introduction and Plan

2.1.1 Establishment of organizations and systems

Purpose

Implementation of information security measures can be accomplished when employees therein fully understand the authority and responsibilities related to their job positions and functions, and duly fulfil those responsibilities. To achieve this it is essential to clearly define such authority and responsibilities and establish necessary organizations and systems. In particular, the chief information security officer should direct and encourage the entire Agency to systematically execute measures to ensure a steady promotion of information security measures.

The chief information security officer can delegate part of their own responsibilities stipulated in these Common Standards to responsible officers in charge set forth in these Common Standards, such as their deputy chief information security officer.

Compliance Requirements

- (1) Designation of the chief information security officer and deputy chief information security officer
 - (a) The chief information security officer shall be designated to direct tasks associated with information security measures at Agencies.
 - (b) Agencies may, as needed, designate one deputy chief information security officer who assists the chief information security officer by organizing work related to information security at the Agency and oversee work related to the Agency’s information security under the orders of the chief information security officer.
- (2) Establishment of the Information Security Committee
 - (a) The chief information security officer shall establish the Information Security Committee, which consists of representatives of the information security measure promotion structure

and of departments engaged in other operations, and whose function is to deliberate over provisions such as standards.

- (3) Designation of the chief information security auditor
 - (a) The chief information security officer shall designate the head information security auditor who directs tasks associated with audits conducted under the direction of the chief information security officer.

- (4) Designation of the head information security officer and information security officers
 - (a) The chief information security officer shall designate an information security officer who directs tasks of information security measures for each unit of organization where the same quality of such measures can be implemented due to the characteristics of their duties. One of the information security officers shall be designated by the chief information security officer as the head information security officer, who directs all information security officers and assists the chief information security officer and deputy chief information security officer.
 - (b) Information security officers shall designate an area information security officer who directs tasks of information security measures for each area set forth in the compliance requirements 3.2.1(2)(a).
 - (c) Information security officers shall designate a division/office information security officer for each office who directs information security related work.
 - (d) In the planning phase of such information security, information security officers shall designate information system security officers who are responsible for tasks concerning information security measures in the divisions under their management.

- (5) Designation of the chief information security advisor
 - (a) The chief information security officer shall designate the chief information security advisor with expertise and experience in information security, and define the job descriptions of the position including advisory functions for the chief information security officer.

- (6) Establishment of an information security measure promotion structure
 - (a) The chief information security officer shall establish an information security measure promotion structure and stipulate its duties.
 - (b) The chief information security officer shall designate the person in charge of the information security measure promotion structure.

- (7) Establishment of the system for information security incidents
 - (a) The chief information security officer shall manage and clarify the role of CSIRT.
 - (b) The chief information security officer shall designate employees deemed to have expertise and competence in information security as officers in charge of CSIRT. One of the CSIRT

officers shall be designated as the head CSIRT officer who directs measures in the event of information security incident at Agencies. The chief information security officer shall designate the employees in charge of management inside of CSIRT, coordination with others, and so forth.

- (c) The chief information security officer shall establish a reporting system through which all concerning parties immediately report to him or her in the event of security information incident.
 - (d) The chief information security officer shall designate employees who are in charge of CYMAT (this is only for national administrative organs).
- (8) The roles that should not be concurrently undertaken by the same person
- (a) Employees shall not concurrently undertake the following roles when implementing information security measures.
 - (i) A submitter of an application for approval or permission (hereinafter referred to as “approval, etc.” in this paragraph), and a person who approves the application (hereinafter referred to as “the approval authority, etc.” in this paragraph).
 - (ii) An auditee and an auditor
 - (b) When applying for approval, etc., if employees themselves are the approvers, or if it is irrelevant for the approval authority, etc. to decide whether the application should be approved or denied, such approval, etc. should be submitted to, and granted by, their supervisors or other parties deemed relevant.

2.1.2 Establishment of standards for measures and promotion plan of measures

Purpose

In order to appropriately maintain the level of information security at Agencies and comprehensively reduce information security risks, it is important to both establish standards for the measures with which Agencies should comply and systematically implement measures based on the results of risk assessments of information security.

Compliance Requirements

- (1) Establishment of the government agency’s own standards
 - (a) The chief information security officer shall establish the standards conforming to the Common Standards for Measures, through deliberation by the Information Security Committee. In addition, they shall establish standards based on the results of risk assessments related to the Agency’s work, the information it handles, and the information systems in its possession.
- (2) Establishment of the promotion plan of measures
 - (a) The chief information security officer shall establish a plan to comprehensively promote information security measures (hereinafter referred to as the “promotion plan of measures”)

through deliberation by the Information Security Committee. In addition, the promotion plan of measures shall include an overall policy based on the risk assessment results of the tasks and information handled by Agencies, as well as the information systems owned by these Agencies. The plan shall also contain the policies for initiatives, significant points, and the implementation schedules which are indicated below.

- (i) Education on information security
- (ii) Self-check of information security measures
- (iii) Information security audit
- (iv) Initiatives to promote technical measures related to information systems
- (v) Any other important initiatives related to information security measures listed in the preceding items

2.2 Operation

2.2.1 Enforcement of information security related provisions

Purpose

It is necessary for Agencies to establish specific operational procedures to implement the measures stipulated in the government agency's own standards.

If the operational procedures for the measures are improperly organized or lack some processes, they may not be duly implemented. Therefore, it is important for the chief information security officer to instruct the head information security officer to maintain operational procedures and receive periodic reports to clearly understand the maintenance status.

Compliance Requirements

- (1) Operation of information security measures
 - (a) The head information security officer (unless otherwise specified in this Standards) shall maintain the operational procedures for information security measures at Agencies and direct tasks concerning the operational procedures, and report the maintenance status to the chief information security officer.
 - (b) The head information security officer shall maintain personnel management rules for information security measures, such as the start and end of employment, and personnel changes.
 - (c) The information security measure promotion structure shall carry out the necessary tasks according to the roles that have been designated for it by the chief information security officer.
 - (d) The information security officers or division/office information security officers shall report to the head information security officer, if there are any issues or problems with information security related provisions reported by employees.
 - (e) The head information security officer shall determine the application status regarding information security-related rules and regulations, including any issues or problems for this,

in a timely manner and report the details of this to the chief information security officer as needed.

(2) Handling violations

- (a) Employees shall report to the information security officers when they become aware of any serious breach of information security related provisions.
- (b) The information security officers shall instruct the violator and concerned parties to take necessary measures to maintain information security when he or she is informed of, or becomes aware of any serious breach of information security related provisions, and shall report to the chief information security officer through the head information security officer.

2.2.2 Exceptional measures

Purpose

As exceptional measures are used only in case of exception, they should not be overused. However, there may be situations where employing methods other than those prescribed, or not implementing the prescribed measures should be approved, due to the reasons such as applying certain information security related provisions shall significantly hinder appropriate execution of administrative tasks. To handle such situations, it is necessary to establish procedures for exceptional measures.

Compliance Requirements

(1) Maintenance of exceptional measures

- (a) The chief information security officer shall designate a person who examines applications for exceptional measures (hereinafter referred to as “the permission authority” in this provision) and shall establish the examination procedure.
- (b) The head information security officer shall maintain the records of exceptional measure application and request the permission authority to regularly report on application status.

(2) Operation of exceptional measure

- (a) Employees shall follow the stipulated examination procedures when submitting applications for exceptional measures to the permission authority. In case that a task should be executed immediately and can be handled with utmost respect for provisions, where taking measures other than those prescribed in the information security related provisions or not taking prescribed measures is unavoidable, applications for such exceptional measures shall be promptly submitted afterwards.
- (b) The permission authority shall examine applications for exceptional measures submitted by employees in accordance with the stipulated approval procedures and determine whether or not to approve.
- (c) The permission authority shall establish records of exceptional measure application and report them to the head information security officer.

- (d) The head information security officer shall review information security measures for necessary revisions or additions based on the application status of exceptional measures, and report them to the chief information security officer.

2.2.3 Education

Purpose

Even when the information security related provisions are appropriately maintained, the level of information security cannot be enhanced if employees are not aware of, nor comply with their contents. Therefore, it is essential to educate all employees to let them acquire deeper knowledge of the information security rules.

It is necessary to bring up skilled human resources with expertise in information security for the reason of recent increase of information security incidents in Agencies and so forth.

Compliance Requirements

- (1) Establishment of structures for information security measures education and formulation of education implementation plans
 - (a) The head information security officer shall establish education plans on information security measures based on the measures promotion plans, and maintain their enforcement framework.
 - (b) The head information security officer shall revise the education implementation plans in the event that matters on which education should newly be provided to employees come to light according to changes in the information security environment.
- (2) Enforcement of information security measures education
 - (a) The division/office information security officer shall ensure employees duly participate in the education concerning information security-related regulations based on the education implementation plan.
 - (b) Employees shall duly participate in information security measure education, according to the education plan.
 - (c) The division/office information security officer shall ensure officers affiliated to the information security measure promotion structure and CSIRT duly participate in information security measure education. In addition, division/office information security officers at national administrative organs shall ensure that employees affiliated with CYMAT properly receive information security measure education.
 - (d) The division/office information security officer shall record the information security measure education implementation status and report this to the information security officer and head information security officer.
 - (e) The head information security officer shall analyze and assess the information security measure education implementation status and report to the chief information security officer on the enforcement status of information security measures education.

2.2.4 Handling of information security incidents

Purpose

If an information security incident is detected, it should be immediately reported to the chief information security officer, and the measures to prevent the spread of damage as well as for recovery, should be implemented. Also, after handling the incident, it is important to identify the lessons to be learned by investigating the root causes, and utilize those lessons to prevent recurrence, and to review the systems and procedures.

Compliance Requirements

- (1) Preparation for information security incidents
 - (a) The head information security officer shall establish/maintain reporting procedures, including points of contact within the Agencies in the event of information security incidents (including potential incidents), and shall inform all employees of these procedures including examples of reporting.
 - (b) The head information security officer shall establish/maintain procedures for measures including sharing information with parties other than Agencies in the event of information security incidents (including potential incidents).
 - (c) In preparation for information security incidents, the head information security officer shall establish an emergency communication network containing emergency contacts, communication methods, and contents to report, for the information systems deemed especially critical to execute administrative tasks.
 - (d) The head information security officer shall examine the necessity of education on measures against information security incidents, and establish/maintain the contents and framework of the education for the information systems deemed especially critical to execute administrative tasks.
 - (e) The head information security officers shall establish/maintain points of contact to receive reports on information security incidents from parties other than Agencies, and show them the method to communicate with such point of contact.
 - (f) The head information security officers shall confirm that the procedures for measures work adequately, through education and so forth.
- (2) Handling of information security incidents
 - (a) Employees shall report to the points of contact at Agencies and follow their instruction in the event of information security incidents (including potential incidents).
 - (b) The CSIRT shall check the reported information security incident (including potential incident) and verify whether or not it is an information security incident.
 - (c) The head CSIRT officer shall immediately report to the chief security officer in the event of information security incidents.

- (d) The CSIRT shall provide the relevant information security officers concerning the information security incident with instructions or advice on emergency measures to prevent spread of damage and to recover from the incident.
 - (e) Information security officers shall implement appropriate measures based on procedures stipulated by Agencies, or on CSIRT instructions or advice, in the event of information security incidents against the information security system under their management.
 - (f) In the event of information security incidents affecting the common platform system, where the information security provisions for system operation and management of such common platform system are available, information security officers shall duly follow those provisions when implementing measures.
 - (g) The CSIRTs at national administrative organs shall immediately report to the National center of Incident readiness and Strategy for Cybersecurity in the event of information security incidents against information security systems at their respective administrative organs. Furthermore, in the event that the CSIRTs at Incorporated Administrative Agencies and Designated Corporations detect an information security incident with the information systems of the agency or corporation in question, they shall promptly report said incident to the national administrative organ that has jurisdiction over the said agency or corporation. Upon being notified, the CSIRTs at national administrative organs must promptly notify the National center of Incident readiness and Strategy for Cybersecurity.
 - (h) In case that the detected information security incidents are cyber-attacks or likewise, CSIRT shall report to the police depending on the contents of such information security incidents.
 - (i) Furthermore, in the event that the detected information security incidents or information security incidents reported to CSIRTs at national administrative organs by Incorporated Administrative Agencies and Designated Corporations constitute threats or potential threats, such as large scale cyber-attacks which cause or may cause significant damage to the citizen's life, body, property, or national land, CSIRT shall provide a report and notification in accordance with "Initial countermeasures for large-scale cyber-attacks" (March 19, 2010, decided by the Deputy Chief Cabinet Secretary for Crisis Management).
 - (j) The CSIRT shall be aware of handling status of the information security incident and, if necessary, provide with instructions or advice on handling.
 - (k) The CSIRT shall record the handling of the information security incident.
 - (l) The CSIRT shall share the details of information security incidents with concerning bodies, including Agencies.
 - (m) The CSIRT shall provide necessary information to CYMAT when receiving their supports.
- (3) Prevention of recurrence of information security incidents and sharing of lessons learned
- (a) Information security officers shall, upon receiving instructions or advice from CSIRT on emergency measures and recovery, investigate the cause of information security incidents based on such instructions or advice, and review the measures for prevention and report them to the chief information security officer.

- (b) The chief information security officer shall examine the report on information security incidents submitted by information security officers, and take necessary measures to prevent recurrence.
- (c) The head CSIRT officer shall share the lessons learned from consequences of the incident handling with the head information security officer, the relevant information security officers and so forth.

2.3 Assessment

2.3.1 Self-check of information security measures

Purpose

To ensure effectiveness of information security measures it is vital to assess how the information security related provisions are complied with, and to analyze the results of such assessments.

It is important to appropriately carry out self-check to see if an employee duly carries out the measures implemented according to his or her role, and also to assess the level of information security in the entire Agency.

In addition, it is important for each concerning party to implement the necessary revised measures within the scope of his or her responsibility for the role, based on the results of self-check.

Compliance Requirements

- (1) Formulation of self-check plans and establishment of procedures
 - (a) The head information security officer shall formulate an annual plan for self-checks based on the measures promotion plan.
 - (b) Information security officers shall maintain self-check forms and procedures for each employee based on the annual plan for self-checks.
 - (c) The head information security officer shall revise the annual plan for self-checks in the event that matters that should be newly checked come to light according to changes in the information security environment
- (2) Conducting self-check
 - (a) Information security officers shall instruct employees to conduct self-check in accordance with the annual self-check plan.
 - (b) Employees shall conduct self-check using the self-check forms and procedures prepared by information security officers.
- (3) Evaluations and improvements based on self-check
 - (a) The information security officers shall analyze and evaluate the results of the self-checks in the interest of confirming whether there are any problems unique to the Agency they oversee as a whole. They shall also report the evaluation results to the head information security officer.

- (b) The head information security officer shall analyze and evaluate the results of the self-checks in the interest of confirming whether there are any problems commonly shared throughout the Agency. They shall also report the evaluation results to the chief information security officer.
- (c) The chief information security officer shall evaluate the overall results of self-check and instruct information security officers to make improvements on any identified issues. The chief information security officer shall be reported concerning the results of improvements.

2.3.2 Information security audit

Purpose

To ensure effectiveness of information security measures it is also vital to ensure that an independent party to carry out information security audit, while parties engaged in information security measures to conduct self-check.

In addition, it is important for the chief information officer to instruct information security officers to implement necessary measures based on the issues identified by the audit.

Compliance Requirements

- (1) Formulation of audit plans
 - (a) The head information security auditor shall formulate plans for information security audit based on the promotion plan of measures.
 - (b) The head information security auditor shall establish an additional audit implementation plan in case it is necessary to perform an audit that is not defined in the promotion plan of measures, responding to situational changes in information security.
- (2) Conducting information security audit
 - (a) The head information security auditor shall instruct information security auditors to conduct audits in accordance with the promotion plan of measures, and provide the chief security officer with an audit report containing the following items.
 - (i) The audit shall confirm that the matters stipulated in the government agency's own standards are in accordance with the Common Standards for Measures.
 - (ii) The audit procedures shall be in accordance with the government agency's own standards
 - (iii) The audit shall confirm if operations in auditees' departments are in accordance with the information security related provisions, by verifying matters such as adequately conducted self-checks.
- (3) Responding to audit results
 - (a) The chief information security officer shall instruct the head information security officer and information security officers to formulate improvement plans for any issues pointed out in the audit report.

- (b) The head information security officer shall formulate improvement plans after first taking the necessary measures for items requiring cross-sectoral improvements within the Agency from among those for which the chief information security officer has requested improvements. They shall also report the results of the measures taken and the improvement plans to the chief information security officer.
- (c) The information security officers shall, after taking the necessary measures, formulate improvement plans for the issues requiring specific improvements for the Agencies they oversee as a whole from among those for which the chief information security officer has requested improvements. The information security officers shall report the results of taking the necessary measures and the improvement plans to the chief information security officer.

2.4 Review

2.4.1 Review of information Security measures

Purpose

As the environment surrounding information security is constantly changing, the level of information security cannot be maintained if these changes are not appropriately addressed. Therefore, it is necessary to conduct periodical reviews on the information security related provisions which serve as the basis for information security measures for Agencies. At that time, it is essential to assess risks by analyzing potential threats and damages in case of their occurrence concerning possessed information and information systems, taking into account the matters such as issues with actual operations, results of self-inspections and audits, and change of circumstances surrounding information security.

It is also vital to reflect these results in the standards and promotion plan of measures to further promote the initiatives for information security.

Compliance Requirements

- (1) Review of information security related provisions
 - (a) The chief information security officer shall comprehensively evaluate the information security operation and the results of self-checks and audits, and conduct a necessary review on the government agency's own standards, taking into account the significant situational changes in information security, and after deliberations of the Information Security Committee.
 - (b) The head information security officer shall review the information security operation procedures, taking into account the information security operations and the results of self-checks and audits, or shall instruct who prepared the procedures to review the provisions, and report the results to the chief information security officer.
- (2) Review of promotion plan of measures
 - (a) The chief information security officer shall comprehensively evaluate the information security operation and the results of self-checks and audits, and conduct a necessary review

on the measures promotion plan, taking into account the significant situational changes in information security, and after deliberations of the Information Security Committee.

Chapter 3 Information Handling

3.1 Information Handling

3.1.1 Information handling

Purpose

The execution of work requires information handling such as preparation, obtainment, use, storage, provision, transportation, transmission, and deletion (hereinafter referred to as “use or handling” in this provision). In order to maintain the security of certain information, all employees who use or handle such information need to implement appropriate measures corresponding to its characteristics at each phase of the information lifecycle. For this reason, it is necessary for employees to take actions such as labeling classifications and handling restrictions of information upon its preparation or obtainment, to share the same understanding on handling of such information, as well as to implement measures in accordance with its classification and handling restrictions.

The Document Management Guidelines shall be primarily applied for management of confidential documents at national administrative organs. For the matters related to information security measures not stipulated in the Guidelines, it is essential to ensure appropriate information handling based on the Common Standards. In addition, measures shall be taken based on the provisions of these Common Standards regarding the management of confidentiality class-3 information at Incorporated Administrative Agencies and Designated Corporations.

Compliance Requirements

- (1) Maintenance of provisions related to information handling
 - (a) The head information security officer shall maintain the provisions of information handling which contains the following items and notify them to employees.
 - (i) Definitions of “classifications and handling restrictions of information”
 - (ii) Procedures of labeling, etc. of “classifications and handling restrictions of information”
 - (iii) Procedures of maintenance and review of “classifications and handling restrictions of information”
- (2) Prohibition of use or handling of information for non-job related purposes
 - (a) Employees shall limit the use or handling of the information within the scope of their job functions.

- (3) Determination and labeling, etc. of classifications and handling restrictions of information
 - (a) When preparing information or start managing information prepared by parties other than Agencies, employees shall determine the classifications and handling restriction of information in accordance with its definitions, and take necessary actions of labeling, etc.
 - (b) When preparing or duplicating information, employees shall maintain the same confidentiality classification and handling restrictions as the original, if the obtained or referred original information is already classified according to its level of confidentiality.
 - (c) If the existing classifications and handling restrictions deem necessary to be reviewed for amendments, additions, deletions, and for other reasons, employees shall consult with a person, or his or her senior, who determines the classifications and handling restrictions (including those who follow the determination- hereinafter referred to as the “classifying authority in this section), and conduct reviews based on the outcome of such consultation.

- (4) Use and storage of information
 - (a) Employees shall appropriately handle information in accordance with the classification and handling restrictions, which is labeled, or otherwise specified.
 - (b) Employees shall obtain permission from their division/office information security officers when processing confidentiality class-3 information outside of the areas requiring control measures.
 - (c) Employees shall take necessary security management measures when processing classified information outside of the areas requiring control measures.
 - (d) Employees shall appropriately manage information in accordance with the classification and handling restrictions of information, such as setting access control when saving information. The employees of Incorporated Administrative Agencies and Designated Corporations shall take the following steps when storing confidentiality class-3 information to devices. However, when confidentiality class-3 information is handled in a manner equivalent to national administrative organs by Incorporate Administrative Agencies and Designated Corporations, their employees may take steps equivalent to those taken by national administrative organs in lieu of the following steps.
 - (i) When storing confidentiality class-3 information to devices, devices such as terminals, servers, and so on that are not connected to the internet or information systems with internet connections must be used.
 - (ii) The said information must be stored in an encrypted state.
 - (iii) Measures must be taken to protect the devices on which the said information is stored from physical threats, such as theft or their unauthorized removal.
 - (e) Employees shall follow the prescribed procedures when handling information using external storage media, such as USB memories and so on.

- (5) Provision and disclosure of information
- (a) When disclosing information, employees shall make sure the information is classified as class 1 information.
 - (b) When providing information to parties outside of the scope of viewing restrictions, employees shall consult with the classifying authority and follow his or her decision. In addition, employees shall ensure that the information is properly handled in accordance with the prescribed classification and handling restrictions at the parties' sites. To achieve this employees shall take measures such as to assuredly inform the parties of points to be noted when handling such information.
 - (c) When providing confidentiality class-3 information to parties outside of the scope of viewing restrictions, employees at Incorporated Administrative Agencies and Designated Corporations shall receive the approval of their division/office information security officer.
 - (d) When providing or disclosing information in electronic or magnetic format, employees shall take measures to prevent inadvertent information leakage.
- (6) Transportation and transmission of information
- (a) When transporting an external storage media which stores or contains classified information to places outside the areas requiring control measures, employees shall select the means of transportation with considerations to security and take appropriate measures to ensure security in accordance with the classification and handling restrictions of the information. When the employees of Incorporated Administrative Agencies and Designated Corporations take confidentiality class-3 information outside of areas requiring control measures, this is to be transported via the method specified by the division/office information security officer after first encrypting the information. In case that the media is transported only to an area pre-designated by the head security officer, which is defined as the areas requiring handling restrictions by other Agencies, such an area shall be regarded as an area requiring control measures.
 - (b) When transmitting classified information in electronic or magnetic format such as e-mail, employees shall select the means of transmission with considerations to security, and take appropriate measures to ensure security in accordance with the classification and handling restriction of information. When the employees of Incorporated Administrative Agencies and Designated Corporations use communication lines outside the Agency (excluding the internet) to transmit confidentiality class-3 information, they shall transmit this via the method specified by the division/office information security officer after first encrypting the information. However, when confidentiality class-3 information is handled in a manner equivalent to national administrative organs by Incorporate Administrative Agencies and Designated Corporations, their employees may take steps equivalent to those taken by national administrative organs in lieu of the above action.

- (7) Deletion of information
 - (a) Employees shall immediately erase the information stored in an external storage media when it becomes unnecessary for their job functions.
 - (b) When disposing of an external storage media, employees shall erase all the information stored, making it completely unrestoreable and ensuring there is no remaining information in the media.
 - (c) When disposing of confidential information in written format, employees shall make it unrestoreable.

- (8) Backup of information
 - (a) Employees shall take backup of information in an appropriate manner in accordance with the classification of information.
 - (b) Employees shall determine the place, manner, period for storage and so on, of the backup information, and appropriately manage it in accordance with the classification and handling restriction of information.
 - (c) Employees shall appropriately delete, erase or dispose of the information with exceeded storage period, in accordance with the provisions set forth in the previous section.

3.2 Information Handling Areas

3.2.1 Information handling areas

Purpose

When the server equipment, terminals and other equipment are installed in an environment physically accessible by unspecified large number of publics, there are risks such as malicious impersonation, physical destruction to the equipment, and information leakage caused by illegal removal of such equipment. Other threats concerning the environment where the systems are installed include damage to information systems as a result of disasters.

Therefore, it is necessary to ensure security of information and information systems in the areas including offices, conference rooms, and server rooms where information is handled, by implementing measures such as physical countermeasures, as well as entrance and exit management systems, and so on.

Compliance Requirements

- (1) Determine the standards for measures for the areas requiring control measures
 - (a) The head information security officer shall determine the scope of the areas requiring control measures.
 - (b) The head information security officer shall determine the standards for measures for the areas requiring control measures according to the characteristics of each area which include the following items.

- (i) Physical measures to prevent easy access to the areas by unauthorized persons, including maintenance and installation of facilities such as lockable doors and partitions.
 - (ii) Entrance and exit management systems to restrict unauthorized persons to enter the areas, as well as to prevent illegal actions by authorized persons while they are in the areas.
- (2) Determine the measures to be implemented in each area
 - (a) Information security officers shall determine areas per unit where they implement measures for facilities and work environments based on the standards set forth by the head information security officer.
 - (b) Area information security officers shall determine measures to be implemented in the areas they manage, considering the matters such as the standards set forth by the head information officer, surrounding environment, type of administrative tasks, and information handled in such areas.
- (3) Implementation of measures for the areas requiring control measures
 - (a) Area information security officers shall implement measures determined in the areas they manage. As for the measures need to be carried out by employees, area information security officers shall take actions to ensure that employees duly understand and recognize such measures.
 - (b) Area information security officers shall implement physical measures to protect information systems which handle vital information from disasters.
 - (c) Employees shall use the areas in accordance with the measures determined by area information security officers. Employees shall ensure those who belong to parties other than their own Agencies use the areas in accordance with the prescribed measures when allowing such external parties to enter the areas.

Chapter 4 Outsourcing

4.1 Subcontracting

4.1.1 Subcontractingt

Purpose

When the development, operation, or maintenance of information systems or application programs is contracted out to external parties which makes it difficult for employees to directly manage the information security measures at the subcontractors, it would be vital to specify requirements for subcontractors in documents such as procurement specifications and include them in terms of contracts, in order to ensure the information security measures conforming to the government agency's own standards are duly implemented by subcontractors.

There are a variety of forms of subcontracting as shown in the examples below, and forms of agreement vary from fixed-price contracts, delegation contracts and semi-delegation contracts to consent to general terms and conditions, and so on. In any case where an agreement is entered into for subcontracting tasks for which it is necessary that information security measures conforming to the government agency's own standards are duly implemented by subcontractors as stated above, it is important to clearly define the scope of tasks contracted out and responsibilities incurred by subcontractors, and to reach a mutual agreement on details of information security measures.

In cases where a subcontractor uses an external service, the provisions of section 4.2 "Use of External Services" shall also be included in the requirements for the subcontractor, since the subcontractor would also be exposed to risks specific to external services.

<Examples of subcontracting>

- Development and construction of information systems
- Development of applications and contents, and so on.
- Operation of information system
- Operation support services (statistics, data aggregation, data entry, media conversion, and so on.)
- Project management support services
- Investigation and research (investigation, research, examination, etc.)

Compliance Requirements

- (1) Maintenance/establishment of provisions related to subcontracting
 - (a) The head information security officer shall maintain/establish provisions related to subcontracting which include the following items.
 - (i) Criteria for determining the scope of information and information systems that may be accessed by subcontractors (hereinafter referred to as the "criteria and procedures for selection" in this provision).
 - (ii) Criteria and procedures for selecting subcontractors.

(2) Subcontracting agreements

- (a) Information system security officers or division/office information security officers shall subcontract tasks in accordance with the criteria and procedures for selection.
- (b) When subcontracting tasks, information system security officers or division/office information security officers shall select subcontractors in accordance with the criteria and procedures for selection. Implementation of the below specified information security measurements by subcontractors shall be the terms of selection, which should be included in the contractual specifications.
 - (i) Prohibition of use of information by subcontractors for non-job related purposes.
 - (ii) Implementation and management systems of information security measures carried out by subcontractors.
 - (iii) Management systems to prevent any alternation of data and so on, made against the Agency's intention, by subcontractor companies or their employees, or sub-subcontractors or any other parties, while executing tasks contracted out.
 - (iv) Information of subcontractors including their capital ties, executives, the sites where tasks contracted out are processed, professional affiliations and expertise (qualifications and training experience on information security), experience and nationality of employees of the subcontractors.
 - (v) Measures (including framework and procedures) for information security incidents
 - (vi) Systems for checking implementation status of information security measures as well as other matters in the agreement.
 - (vii) Remedial actions in case of insufficient implementation of information security measures.
- (c) Information system security officers or division/office information security officers shall examine matters such as the classification of information handled by the subcontractors and include the following items in the contractual specifications as necessary.
 - (i) Acceptance of information security audits
 - (ii) Service level assurance
- (d) In cases where subcontractors subcontract a part of tasks contracted out, information system security officers or division/office information security officers shall make sure the subcontractors implement the above specified measures (b) and (c) to ensure a sufficient level of information security against the threats caused by subcontracting. In addition, information system security officers or division/office information security officers shall include in the contractual specifications the term that subcontractors give to the Agency information necessary to verify the implementation of information security measures in sub-subcontractors, and receive the approval of the Agency. In addition, decisions on whether or not to provide approval for subcontracting shall be made based on criteria and procedures for selection and subcontractor selection criteria.

- (3) Implementation of measures by subcontractors
 - (a) Information system security officers or division/office information security officers shall check implementation status of information security measures implemented by subcontractors based on the contract.
 - (b) Information system security officers or division/office information security officers shall take necessary measures such as temporal stop of tasks contracted out, and then make subcontractors to take the measures based on the contract, in case that they become aware, or are informed by employees, of information security incidents or use of information for non-job related purposes by subcontractors while executing tasks contracted out.
 - (c) Information system security officers or division/office information security officers shall ensure the information handled by subcontractors to be returned or erased upon the termination of the contract.

- (4) Information handling when subcontracting tasks
 - (a) Employees shall comply with the following requirements when providing information and so on, to subcontractors.
 - (i) When providing classified information to subcontractors, restrict it to the minimum and use a prescribed safe delivery method.
 - (ii) When the provided classified information is no longer required by subcontractors, make sure the subcontractors will duly return or erase the information.
 - (iii) Immediately report to information system security officers or division/office information security officers in the event of information security incidents or use of information for non-job related purposes while tasks contracted out are being performed.

4.2 Use of External Services

4.2.1 External services to handle confidential information

Purpose

The expansion of the use of external services such as cloud services by Agencies in the future is expected. When using external services, it is necessary to ensure the security by looking over the entire distribution channels of information including the external service infrastructure part and by designing/configuring measures comprehensively.

Information whose handling is entrusted by Agencies to external service providers should be handled appropriately at the providers. However, in using external services, it is not generally easy to confirm directly that the information is appropriately handled. Furthermore, in external services, it may be difficult to receive the information related not only to themselves but also to other users, since multiple users may use a common external service infrastructure. When an Agency handles confidential information using an external service, in order to properly select an external service provider, it is necessary to understand such characteristics of the external service, fully consider matters necessary for ensuring security in the use and the effectiveness of governance to the external service provider

by the Agency, clarify roles and responsibilities shared between the Agency and the external service provider, and then ensure that the external service meets selection criteria and security requirements. In addition, it is necessary to take security measures in using external services not only when external service providers are selected and agreements are entered into with the providers, but also when information systems are introduced and constructed after the agreements are entered into with the providers, and then operated and maintained, and furthermore, throughout the lifecycle of the relevant information system until the termination of its agreement. In particular, the content of each external service varies in a very fast cycle, and it is possible that security measures taken at the start of use of the external service become ineffective before the termination of use of the service. Therefore, it is necessary to regularly and thoroughly implement the measures in the operation and maintenance phase.

<Examples of external services>

- Cloud services
- Web conference services
- SNS (social networking services)
- Search services, translation services, mapping services
- Hosting services
- Internet connection services

In most of cases of external services that are provided by private service providers to an unspecified number of users and become available only on consent to standard general terms and conditions, terms of services, etc., it is impossible to request that those providers take security measures or handle data in a special manner for Agencies, and it is generally difficult to satisfy necessary and sufficient security requirements for the handling of confidential information. Therefore, in principle, handling of confidential information in this type of external services is not allowed.

Compliance Requirements

- (1) Maintenance/establishment of provisions related to use of external services
 - (a) The head information security officer shall establish/maintain provisions related to use of external services (in cases where confidential information is handled), which contain the following items.
 - (i) Criteria on types of tasks and information systems to allow use of external services, and on location restrictions for handling confidential information (hereinafter referred to as the “Criteria for Allowing Use of External Services” in this section 4.2)
 - (ii) Criteria for selecting external service providers
 - (iii) Permitting authority and procedures for starting use of external services
 - (iv) Designation of the external service administrator and management of use of each external service

- (2) Selection of external services (in cases of cloud services)
 - (a) Information system security officers or division/office information security officers shall review the use of external services while taking into account the classification of and handling restrictions on information to be handled in accordance with the Criteria for Allowing Use of External Services.
 - (b) Information system security officers or division/office information security officers shall select external service providers while taking into account the classification of and handling restrictions on information to be handled in external services in accordance with the criteria for selecting external service providers. If there are risks specific to any tasks, necessary information security measures shall be included in the terms of selection of external service providers.
 - (c) Information system security officers or division/office information security officers shall establish security requirements and select external services while taking into account the classification of and handling restrictions on information to be handled, as well as the scope of roles and responsibilities of the external services regarding information security.

- (3) Selection of external services (in cases of non-cloud services)
 - (a) Information system security officers or division/office information security officers shall review the use of external services while taking into account the classification of and handling restrictions on information to be handled in accordance with the Criteria for Allowing Use of External Services.
 - (b) Information system security officers or division/office information security officers shall select external service providers while taking into account the classification of and handling restrictions on information to be handled in external services in accordance with the criteria for selecting external service providers. Information security measures containing the following items shall be included in the terms of selection of external service providers.
 - (i) Prohibition of use by external service providers for non-job related purposes of information that is handled by Agencies through the use of external services
 - (ii) Implementation and management systems of information security measures to be taken by external service providers
 - (iii) Management systems to prevent any alternation of data and so on, made against the Agency's intention, by external service providers or their employees, sub-subcontractors, or any other parties, while providing external services
 - (iv) Provision of information on external service providers including their capital ties, executives, locations such as facilities where external services are provided, and the affiliation, expertise (qualifications, training experience, etc. on information security), experience, and nationality of each person engaged in the provision of external services
 - (v) Measures (including framework and procedures) for information security incidents

- (vi) Systems for checking implementation status of information security measures as well as other matters in the agreement
 - (vii) Remedial actions in cases of insufficient implementation of information security measures
- (c) Information system security officers or division/office information security officers shall consider measures for transferring the relevant tasks smoothly at the time of discontinuation or termination of external services, and include them in the terms of selection of external service providers.
- (d) Information system security officers or division/office information security officers shall examine matters such as the classification of information to be handled by Agencies through the use of external services and include the following items in the terms of selection of external service providers.
 - (i) Acceptance of information security audits
 - (ii) Service level assurance
- (e) Information system security officers or division/office information security officers shall select external service providers by evaluating the risk of applying laws, ordinances, and regulations other than domestic laws to the information to be handled by Agencies through the use of external services, and as necessary, include in the terms of selection the place where information on Agencies is handled and the governing law and jurisdiction provided for in an agreement.
- (f) In cases where an external service provider subcontracts part of its services, information system security officers or division/office information security officers shall have the external service provider make sure that requirements contained in the terms of selection of external service providers ensure a sufficient level of information security against the threats caused by subcontracting. In addition, information system security officers or division/office information security officers shall include in the terms of selection of external service providers the term that external service providers provide Agencies with information necessary to verify the implementation of information security measures in sub-subcontractors to obtain the approval of Agencies. In addition, decisions on whether or not to provide approval for subcontracting shall be made in accordance with the Criteria for Allowing Use of External Services and criteria for selecting external service providers.
- (g) Information system security officers or division/office information security officers shall establish security requirements according to the classification of and handling restrictions on information to be handled for the selection of external service providers, and as security requirements for external services, require that external services meet the international standard concerning security or any standard equivalent or superior thereto.
- (h) Information system security officers or division/office information security officers shall establish security requirements based on the scope of roles and responsibilities of external services regarding information security after designing security in such a way as looking over the entire distribution channels of information, while taking the characteristics of the

external services into consideration so that security over the entire distribution channels of information including the part provided by the external services is appropriately ensured.

- (i) Information system security officers or division/office information security officers shall evaluate and determine comprehensively and objectively that the reliability of each external service provider is sufficient, from the contents of reports of information security audits, the application status of various certification/authentication systems, etc.
- (4) Procurement and contract for use of external services
 - (a) In cases of procurement of external services, information system security officers or division/office information security officers shall include in procurement specifications the criteria and terms of selection of external service providers as well as security requirements established upon selection of external services.
 - (b) In cases of procurement of external services, information system security officers or division/office information security officers shall confirm that the external service provider and its services meet procurement specifications before concluding the agreement, and have an agreement with the provider include the procurement specifications.
 - (5) Approval for use of external services
 - (a) In cases of use of external services, information system security officers or division/office information security officers shall submit applications for use of external services to the person authorized to permit use applications.
 - (b) The person authorized to permit use applications shall examine use applications for external services by employees, and decide whether or not to use the services.
 - (c) The person authorized to permit use applications shall, when approving use applications for external services, keep records of approved external services and designate the external service administrator.
 - (6) Measures for implementing and building information systems on external service infrastructure
 - (a) The head information security officer shall establish provisions on security measures for building an information system using an external service, including the following items, based on matters such as the characteristics of the external service and ways of thinking about the demarcation point.
 - (i) Access controls for the prevention of unauthorized access
 - (ii) Encryption for the protection of confidentiality of information to be handled
 - (iii) Security measures at the time of development
 - (iv) Prevention of errors at the time of design and settings
 - (b) The external service administrator shall confirm and keep records of the implementation of the provisions established under the preceding paragraph at the time of construction of the system.

- (7) Measures for operation and maintenance of information systems by the use of external services
- (a) The head information security officer shall establish provisions on security measures for operation of an information system using an external service, including the following items, considering external service characteristics and concepts of applicable shared responsibility model.
 - (i) Provisions of the external service use policy
 - (ii) Education required for external services users
 - (iii) Management of assets to be handled
 - (iv) Access controls for the prevention of unauthorized access
 - (v) Encryption for the protection of confidentiality of information to be handled
 - (vi) Controls over communication in the external service
 - (vii) Prevention of errors at the time of design and settings
 - (viii) Business continuity of the information system by the use of the external service
 - (b) Information system security officers or division/office information security officers shall establish/maintain procedures for measures taken when an incident that has occurred due to the external service is detected, considering external service characteristics and concepts of applicable shared responsibility model.
 - (c) The external service administrator shall regularly confirm and keep records of the implementation of the provisions established under the preceding paragraphs at the time of operation and maintenance of the system.
- (8) Measures for renewal or disposal of information systems by the use of external services
- (a) The head information security officer shall establish provisions on security measures for termination of use of an external service, including the following items, considering external service characteristics and concepts of applicable shared responsibility model.
 - (i) Measures for termination of use of the external service
 - (ii) Disposal of information handled in the external service
 - (iii) Deletion of an account created for the use of the external service
 - (b) The external service administrator shall confirm and keep records of the implementation of the provisions established under the preceding paragraph at the time of termination of use of the external service.

4.2.2 External services to handle non-confidential information only

Purpose

Even if confidential information is not handled and the level of information management required for external service providers is not high, it is required that external services be used after full recognition that various information is sent from Agencies and a decision on whether or not to use them has been made in full consideration of risks. On the other hand, requirements for security measures equivalent to cases where confidential information is handled will hinder the promotion of use of external services. Therefore, in cases where external services are used on the premise that confidential information is not handled, it is required that information security measures be appropriately taken in accordance with Compliance Requirements set forth in this section 4.2.2.

Compliance Requirements

- (1) Maintenance/establishment of provisions related to use of external services
 - (a) The head information security officer shall establish/maintain provisions related to use of external services (in cases where confidential information is not handled), which include the following items.
 - (i) Scope of tasks for which external services are usable
 - (ii) Permitting authority and procedures for starting use of external services
 - (iii) Designation of the external service administrator and management of use of each external service
 - (iv) Operational steps for use of external services
- (2) Implementation of measures for use of external services
 - (a) Employees shall make sure that the risks of using external services are tolerable by checking the terms and conditions and other terms of the services, and then apply for the use of such services in cases where confidential information is not handled. The external service administrator designated upon approval shall ensure that appropriate measures are implemented upon using those services.
 - (b) The person authorized to permit use applications shall examine use applications for external services submitted by employees to determine whether or not to permit them, and also keep records of external services approved.

Chapter 5 Lifecycle of Information Systems

5.1 Maintenance of Documents and Inventories of Information Systems

5.1.1 Maintenance of documents and inventories of information systems

Purpose

To sustain the level of information security of information systems managed by Agencies, and to appropriately, as well as promptly respond to information security incidents, it is vital to centrally examine the details of information security measures for said systems in the information system inventories. It is also important to regularly manage the information such as procurement specifications and settings of system components in a written format, and to be aware of where to locate them, in order for said information to be promptly referred to when necessary.

Compliance Requirements

- (1) Maintenance of information system inventories
 - (a) The head information system security officer shall establish/maintain the matters concerning the security requirements for all the information systems in the information system inventories.
 - (b) When newly constructing or updating an information system, information system security officers shall record or state the contents of the security requirements described in the information security inventory of said system, and report them to the head information security officer.
- (2) Maintenance of documents related to information systems
 - (a) Information security officers shall maintain documents required to implement information security measures for the information systems under their management, containing all the items specified below.
 - (i) Information of the server equipment and terminals composing the information systems
 - (ii) Information of the communication lines and communication equipment composing the information systems
 - (iii) Procedures to maintain the security level of information security of each component of the information systems
 - (iv) Procedures when detecting information security incidents

5.1.2 Establishment/maintenance of provisions related to procurement of equipment, etc.

Purpose

Confidentiality, integrity and availability of information processed by information systems may be compromised if a procured equipment lacks required security functions, or any malicious alternation was made during its manufacturing process, or in those cases where information security measures cannot be continuously implemented to the procured equipment.

To address these issues, it is necessary to establish/maintain criteria for selecting equipment etc., as well as procedures for checks and inspections at the time of delivery, to ensure the procurement is made in accordance with the government agency's own standards.

Compliance Requirements

- (1) Maintenance of provisions related to procurement of equipment, etc.
 - (a) The head information security officer shall establish/maintain the criteria for selecting equipment, etc. The criteria should contain, if necessary, a scheme which enables Agencies to monitor the management of equipment to ensure no malicious alternation is made throughout the lifecycle of equipment, such as its development phase.
 - (b) The head information security officer shall maintain the checks and inspections procedures at delivery of equipment, etc., considering perspectives of information security measures.

5.2 Measures at Each Phase of Information System Lifecycle

5.2.1 Planning and definition of requirements for information systems

Purpose

To appropriately maintain information security throughout the lifecycle of information system, it is necessary to define security requirements appropriately.

Ambiguous, excessive, or insufficient security requirements may result in disadvantages such as cost increase due to excessive measures for information security, unfair competitive biddings caused by different proposal contents due to widely varied interpretations of requirements, and rework in designing and development, as well as information security incidents after commencement of operations.

Therefore, it is important to review measures for expected threats against information systems and to appropriately include sufficient security requirements in specifications, after taking consideration of the scope of tasks, information handled, users who handle the information, as well as the environments and methods and so on used for information processing.

In addition, it is vital to examine the measures to protect the information systems to be constructed from vulnerabilities at the planning phase of the systems, before its construction.

The provisions in section 4.1 "Subcontracting" shall also be observed when subcontracting construction, operation, and maintenance of information systems.

Compliance Requirements

- (1) Ensuring the implementation of frameworks
 - (a) Information system security officers shall request that chief information security officers ensure the implementation frameworks, which enable them to maintain information security throughout the information system's lifecycle.
 - (b) When constructing a system based on the common platform system, information system security officers shall request that chief information security officers ensure frameworks in

accordance with the operational management provisions and so on, set forth by the Agencies, which maintain, operate, and manage the common platform system.

- (c) When the cooperation of the person responsible for the management of information systems (chief information officer (CIO)) must be obtained to ensure the frameworks required in the previous two items, the chief information security officer shall request that said person responsible for the management of information systems set said frameworks in place in whole or in part.

(2) Formulation of security requirements for information systems

- (a) Information system security officers shall formulate security requirements including the following items, based on the matters such as purpose of constructing the information system, task requirements for the targeted tasks and so on, as well as classification of information handled by said system, after determining whether it is necessary to isolate said system from the internet or from systems connected to the internet (including external services).
 - (i) Requirements for security functions to be incorporated to the system such as user/entity authentication, access control, authority control, log management, and encryptions
 - (ii) Requirements for operational management functions such as monitoring, while the information systems are in operation (if the data to be monitored has been encrypted, it must be decrypted as needed).
 - (iii) Requirements for measures against vulnerabilities of the information systems
- (b) When constructing an information system connected to the internet, information system security officers shall decide the communication lines to connect and define security requirements for multiple protection to diminish risks of leakage, manipulation and so forth, caused through the internet such as targeted attacks.
- (c) Information system security officers shall refer to the “List of Requirements for Ensuring Security in Procurement of IT Products” when procuring an equipment, and shall analyze the threats in the environments where the equipment is used, and formulate security requirements to counter the information security threats in said equipment, etc.
- (d) When constructing systems based on the common platform system, information system security officers shall formulate security requirements in accordance with the operational management provisions and so on related to the security measures for such common platform system, in order to maintain the level of information security of entire common platform system.

- (3) Measures when subcontracting the construction of information systems
 - (a) When subcontracting the construction of information systems, information system security officers shall oblige the subcontractors to ensure compliance on the following requirements by implementing measures such as indicating them in the procurement specifications
 - (i) Appropriate implementation of information security requirements
 - (ii) Systems tests conducted from perspectives of information security
 - (iii) Information security measures in the environment and process of information system development.

- (4) Measures when subcontracting the operation and maintenance of information systems
 - (a) When subcontracting the operation and maintenance of information systems, information system security officers shall ensure the subcontractors to comply with the requirements for proper operation of the system's security functions, by indicating these requirements in the procurement specifications, and so on.
 - (b) When subcontracting the operation and maintenance of information systems, information system security officers must have the subcontractors promptly report to them regarding the contents of any changes to the information systems resulting from the information security measures for information systems instituted by the said subcontractors in order to properly grasp the said measures.

5.2.2 Procurement and construction of information systems

Purpose

When procuring and constructing information systems, it is necessary to procure an equipment based on the selection criteria and to carry out information system measures at the development phase of the system, in order to appropriately implement information security measures in accordance with the prescribed security requirements.

It is also required to conduct system inspections following the established/maintained inspection procedures at the time of delivery or reception of information systems, to ensure appropriate incorporation of security and management functions to protect the information handled by such systems.

Compliance Requirements

- (1) Measures when selecting equipment, etc.
 - (a) Information system security officers shall validate if the equipment, etc. is conformed to its selection criteria and use the result as one of the factors for its selection.

- (2) Measures when constructing information systems
 - (a) When constructing information systems, information system security officers shall implement measures deemed necessary from perspectives of information security.

- (b) When the constructed information systems are migrated to the operation and maintenance phase, information security officers shall implement the measures for procedures and environments of migration deemed necessary from perspectives of information security.
- (3) Measures for inspections on delivery
- (a) Information system security officers shall conduct validations and inspection at the time of delivery, following the inspection procedures prescribed in the specifications and so on, in order to ensure the procured equipment, etc. and the received information systems are conforming to the requirements for information security measures.
 - (b) When an information system transitions from the development phase to the operation and maintenance phase, information system security officers shall confirm that content necessary for information security measures is included in the items handed down from the developer of the information system in question to its operator/maintainer.

5.2.3 Operation and maintenance of information security

Purpose

When information systems are migrated to the operational phase, it is necessary to establish the resource allocation system in operation, and to perform regular checks of parameters settings on the equipment and other components, as well as to manage records of operation and maintenance, in order to ensure proper implementation of the security requirements determined upon planning, procurement, and construction of the system.

Most of information security incidents normally occur during operation, so it is important to duly monitor the operation of information systems to confirm effectiveness of the implemented information security measures.

Also, the information security measures for system maintenance need to be appropriately implemented in the same manner as those for system operation. In those cases such as individually outsourcing system maintenance work, it is essential to duly implement the information security measures in accordance with the government agency's own standards.

Compliance Requirements

- (1) Measures for information systems during operation and maintenance
- (a) Information system security officers shall appropriately operate the security functions incorporated to the system during its operation and maintenance.
 - (b) For the systems constructed based on the common platform system, information system security officers shall appropriately operate the information systems under the operational management framework in accordance with the segregation of duties with the other Agencies which maintain, operate and manage the common platform system. Information system security officers shall also operate the information systems following the common platform system's operational management provisions and so on, in order to maintain the level of information security of entire common platform system.

- (c) Information system security officers shall manage the records of operation and maintenance, in order to facilitate tracing of incidents such as malicious activities and unintended access to the systems.

5.2.4 Update and disposal of information systems

Purpose

When updating or disposing of information systems, it is necessary to prevent leakage of highly confidential information contained in the system during disposal or recycling.

If the highly confidential information is saved on the information systems, or classifications or handling restrictions of information stored on the systems are unclear, it is essential to implement measures to ensure complete erasure of such information.

Compliance Requirements

- (1) Measures for update and disposal of information systems
 - (a) When updating or disposing of information security systems, information security officers shall implement the following measures, taking into account of classifications and handling restrictions of the information stored in said systems.
 - (i) Information security measures for transferring data when updating information security systems.
 - (ii) Erasure of unnecessary data when disposing of information security systems

5.2.5 Review on measures for information systems

Purpose

As the environments surrounding information security are constantly changing, the level of information security cannot be maintain if emerging threats are not precisely addressed. For this reason, it is necessary to regularly review the information security measures, and conduct further reviews in the event of drastic changes in external environments, and so on.

Compliance Requirements

- (1) Review on measures for information systems
 - (a) Information security officers shall duly examine necessity of review on information security measures on information systems, in response to the status such as emerging threats, operation, and monitoring, and take necessary measures if they are deemed necessary.

5.3 Operational Continuity Plan of Information Systems

5.3.1 Ensuring consistency between information security measures for information systems and the systems' operational continuity plans

Purpose

It is essential, even in emergencies, to ensure the continuity of business whose interruption may cause

a serious threat to the safety and benefit of citizens. As such, national administrative organs establish and carry out business continuity plans for government agencies and operational continuity plans for information systems. Incorporated Administrative Agencies and Designated Corporations likewise establish and carry out corporate business continuity plans and operational continuity plans for information systems according to the characteristics of their work following their mid-term targets and other instructions.

On the other hand, when continuing operation of information systems at the time of emergency, it is vital to examine and determine the measures for information security in emergency.

It is also necessary to ensure that the requirements prescribed in such business continuity plan and information system operational continuity plan, and those prescribed in the information security related provisions are in accordance with each other, and contain no inconsistencies among them.

Compliance Requirements

- (1) Ensuring consistency between information security measures for information systems and the systems' operational continuity plans
 - (a) When it is necessary to set in place information system operational continuity plans, which support the highly prioritized tasks during emergencies at Agencies, the head information security officer shall review the matters related to measures for information security in emergency.
 - (b) The head information security officer shall confirm if the measures for information systems in emergencies are feasible, when performing tasks such as education and training as well as maintenance and revision on the operational continuity plan of information systems.

Chapter 6 Security Requirements for Information Systems

6.1 Security Functions of Information Systems

6.1.1 User/entity authentication functions

Purpose

In order to limit users/entities accessible to the information or the information systems, it is necessary to introduce user/entity authentication functions. It is important to take measures to prevent unauthorized access through abusing vulnerability or impersonation.

In case of providing services for general public from information systems of Agencies, it is necessary to appropriately protect user/entity authentication information, considering that it is general public who access its information systems.

Compliance Requirements

- (1) Implementation of the user/entity authentication functions
 - (a) Information system security officers shall implement the user/entity identification and authentication functions when identification and verification of authorized users/entities are necessary.
 - (b) When establishing information systems that provide online procedures for submitting applications and notifications between the public or companies and Agencies, information system security officers shall formulate requirements for user/entity authentication based on an assessment of the risks involved with these online procedures.
 - (c) Information system security officers shall implement measures to prevent malicious activities caused by leakage of user/entity authentication information and so on, as well as the measures against unauthorized attempts of user/entity authentication.
- (2) Management of the identification code and the user/entity authentication information
 - (a) Information system security officers shall implement measures to appropriately give identification code and user/entity authentication information to all the entities who access information systems, and manage them.
 - (b) Information system security officers shall implement measures to prevent malicious use of identification code and user/entity authentication information, soon after it becomes no longer necessary for the entity to use the information system.

6.1.2 Access control functions

Purpose

Access control means control of entities who access information systems and information. In case that multiple users operate information systems, risks of information leakage, etc. can be diminished by restricting access to some specific information in the information system only to entities necessary to use it.

Compliance Requirements

(1) Implementation of access control functions

- (a) Information system security officers shall implement a function which enables only the authorized persons to set access control according to the characteristics of information systems, and the classification and handling restrictions of information handled in the systems.
- (b) Information system security officers shall appropriately operate access control functions so as to surely restrict the entities who permit the access to information systems and information.

6.1.3 Authority control

Purpose

In order to operate appropriately access control functions of important systems, it is necessary to set appropriately authority of access from entities to the object. Without appropriate authority control, the risks of unauthorized access to information or information systems would arise.

Administrator authority is one of the authority control functions on the information system, which generally includes privileges to allow all operations on the system.

If such privileges were stolen by malicious third parties, there would be dangers such as leakage or manipulation of user/entity authentication information, or disabling of information security functions by unauthorized setting changes on the information system. Therefore, it is vital to limit the administrator authority only to the relevant users.

Compliance Requirements

(1) Authority control

- (a) Information system security officers shall implement measures to set appropriately authority of access from entities to the object.
- (b) Information system security officers shall implement measures to minimize damages caused by thefts of identification codes and user/entity authentication information of administrator's privileges, and to prevent malicious and erroneous operations which are internally performed.

6.1.4 System logs retrieval and management

Purpose

Logs of the information system are the records of operation, user access history, communication history, and other essential information of management of the system, which are important tools for detecting information security incidents and signs of an incident, such as unauthorized access and operations by malicious third parties.

If any incident concerning information security on the system takes place, these logs will serve as important material for identifying and clarifying the causes in the course of investigations after the incident. For this reason, information systems' logs should be duly retrieved in accordance with

system specifications and need to be appropriately maintained and protected to prevent these logs from being manipulated or lost.

Compliance Requirements

- (1) Event logs retrieval and management
 - (a) Information system security officers shall retrieve logs of information system which are necessary to verify the information systems are appropriately used and free from unauthorized access and operation.
 - (b) After determining the purpose to retrieve logs according to the characteristics, information system security officers shall determine items such as equipment, etc. in which logs should be retrieved, types of information recorded in the log, storage periods, log information handling methods from a viewpoint of classified information handling, as well as measures to implement when log retrieval is not possible, and appropriately manage the logs.
 - (c) Information system security officers shall establish a function to examine or analyze the logs retrieved from the information systems, and perform examinations or analysis to detect unauthorized access and operations, etc. by malicious third parties, and so on.

6.1.5 Encryption and digital signatures

Purpose

Encryption and digital signatures are effective means to prevent leakage and manipulation of information handled by information system, so it is essential to appropriately implement these functions to the system.

When introducing encryption and digital signatures, it is necessary to take into account the issues such as adequacy of algorithms and the protocols using it, measures in case that said algorithm was compromised during operation or in case that a vulnerability is found in said protocol, as well as appropriate key information management.

Compliance Requirements

- (1) Implementation of encryption and digital signature functions
 - (a) Information system security officers shall take the following measures to prevent leakage and manipulation of information handled by information systems
 - (i) Examine the necessity of encryption functions for the information systems handling confidential information, and duly implement them when it is deemed necessary.
 - (ii) Examine the necessity of digital signature and verification functions for the information systems handling critical information, and implement them when it is deemed necessary.
 - (b) Information system security officers shall refer to the “e-Government Recommended Ciphers List” whose security and performance is confirmed by CRYPTREC (the Cryptography Research and Evaluation Committees) and shall establish operational

methods of encryption and digital signature algorithm used on information systems, and safe protocol using it and operation method, which include the following items.

- (i) For encryption and digital signature algorithm used by employees and safe protocol using it, ensure the one in the “e-Government Recommended Ciphers List” (CRYPTREC) is to be applied where possible.
 - (ii) When introducing encryption or digital signature upon implementations or updates of information systems, apply algorithms in the “e-Government Recommended Ciphers List” and safe protocol using it, expect for unavoidable circumstances.
 - (iii) Establish emergency response procedures in the event that the algorithm is compromised or in the event that a vulnerability is found in safe protocol using it.
 - (iv) Establish procedures for managing keys for decryption of encrypted information, and for granting digital signatures
- (c) When assigning a digital signature, information system security officers shall ensure the use of an appropriate public key infrastructure according to the purpose, if the one which is applicable and serves the purpose of digital signature exists, after examining the algorithm and operational methods of encryption and digital signature applied at their own Agencies.

(2) Management of encryption and digital signature

- (a) Information system security officers shall take the following measures to ensure proper use of encryption and digital signature
 - (i) For the information systems which assign digital signatures, securely provide the verifiers of signatures with information and methods of verifying the validity of the signatures
 - (ii) For the information systems which perform encryption, or those which perform assignment or verification of digital signatures, regularly obtain information on threats which compromise the algorithm selected for such operations or raise vulnerability in protocol, and share it with employees as necessary.

6.2 Measures against Information Security Threats

6.2.1 Measures against software vulnerabilities

Purpose

Potential threats against the information systems of Agencies include attacks such as third party intrusions to the systems resulting in the theft or destructions of important information belonging to the Agencies, as well as suspension thereof due to excessive workloads imposed by the third party. In particular, third party intrusions perpetrated against services for the general public resulting in the leakage of important information such as personal information could have an enormous impact on the daily lives of the general public and undermine public trust in the Agencies.

As for these types of threats in general, attackers are likely to abuse vulnerability of software in the server, terminals, and communication line equipment which compose of information systems. Therefore, for information systems in Agencies, it is necessary to quickly and appropriately take

measures against software vulnerabilities.

By the same token, the hardware of information systems may contain such vulnerabilities, so it is essential to refer to the provisions in section 5.2.2 “Information system procurement and configuration”, and to implement necessary measures.

Compliance Requirements

- (1) Implementation of measures against software vulnerabilities
 - (a) When installing or starting operations of servers, terminals, and communication line equipment, information system security officers shall implement measures against publicly disclosed vulnerabilities of the software used on said equipment.
 - (b) When the publicly disclosed information about vulnerabilities is yet to be known, and applicable measures for servers, terminals, and communication line equipment are available, information system security officers shall implement such measures.
 - (c) Information system security officers shall regularly verify the status of measures against vulnerabilities in the software used on servers, terminals, and communication line equipment.
 - (d) When it has been confirmed that measures against vulnerabilities have not been taken as a result of the regular verification of the status of such measures, or when information about vulnerabilities of the software used on servers, terminals, and communication line equipment becomes available, information system security officers shall apply security patches, or establish plans for addressing software vulnerabilities and implement measures, after examining the effects upon information systems due to software updates and so on.

6.2.2 Measures for protection against malware

Purpose

If information systems were infected by malware, potential threats would be system breakdown and leakage of important information stored on said systems. Moreover, such infected information systems can spread infections to other systems, and possibly used as a platform to send spam e-mails and for denial-of-service attacks and so on, as well as a source of targeted attacks, which could give a threat to other entities and other information systems.

In order to prevent such incidents from occurring, it is necessary to duly implement measures against malware.

Compliance Requirements

- (1) Implementations of measures against malware
 - (a) Information system security officers shall install anti-malware software and other tools on server equipment and terminals. However, this shall not apply when no anti-malware software and so on, which are operational on said server equipment and terminals is readily available.

- (b) Information system security officers shall take measures against malware, such as installing anti-malware software to protect all possible malware infection routes.
- (c) Information system security officers shall regularly examine the implementation status of measures against malware as needed and take necessary measures.

6.2.3 Measures against denial-of-service attacks

Purpose

Potential threats against information systems accessed through the internet would be a denial-of-service attack by third parties, which disables legitimate users to access the services. Therefore, for the information systems of Agencies that are accessed through the internet, it is vital to take denial-of-service attacks into account and duly implement measures to ensure continuous availability of the systems. Recently, it is known that large-scale attacks by botnet consisting of so-called IoT (Internet of Things) devices connected to the Internet, or DDoS (Distributed Denial of Service) attack agency services that enable attacks without specialized technology or equipment exist. It is necessary to become more wary of those attacks.

Compliance Requirements

- (1) Implementation of measures for denial-of-service attacks
 - (a) For information systems (referring to only those systems accessed through the internet, hereinafter the same in this section) handling vital information, system security officers shall implement measures for denial-of-service attacks, by using the functions incorporated in the equipment necessary for providing such services, like server equipment, terminals, and communication line equipment, or the methods offered by private business providers, and so on.
 - (b) For information systems handling vital information, system security officers shall construct information systems equipped with tools which minimize impacts of denial-of-service attacks.
 - (c) For information systems handling vital information, system security officers shall identify equipment to be monitored among the server equipment, terminals, communication line equipment, and communication lines which are subject to denial-of-service attacks, and conduct monitoring.

6.2.4 Measures against targeted attacks

Purpose

Targeted attacks are attacks targeting a specific Agency, where attackers conduct a thorough investigation in advance, on the matters such as business practices and other internal information of the target, then make tenacious attacks with a combination of various types of attacks, applying the most effective method to violate the target Agency.

A typical and likely example of such attacks is the one made by intruding into a system of certain

Agency, then expand the intrusion areas to stole or destroy their critical information. A series of such attacks are also made by using unknown methods, which make it difficult to perfectly detect and prevent them.

Therefore, it is necessary to be prepared for targeted attacks by establishing the multiple protection system for information security, which consists of measures to reduce targeted attack intrusions against the Agency (gateway measures), and measures for early detection and response to the intrusions, and measures to make expansion of intrusions harder, as well as measures for detection and response to unauthorized communications with external entities (inter-Agency measures).

Recently, not only direct attacks to target organizations but also indirect attacks to organizations related thereto, such as subcontractors, are confirmed. It is required that a wider range of measures be considered.

Compliance Requirements

- (1) Implementation of measures for targeted attacks
 - (a) Information security officers shall implement measures for information systems which reduce targeted attacks intrusions against the Agency (gateway measures).
 - (b) Information security officers shall implement measures for information systems to immediately detect and respond to the intruded attacks, and to make expansion of the intrusion harder, as well as to detect and respond to unauthorized communication with external entities (internal measures and exit control measures).

6.3 Creation and provision of applications and contents

6.3.1 Measures upon creating applications and contents

Purpose

Agencies prepare applications and contents and make them widely available to offer administrative services such as providing information, executing administrative procedural tasks, and collecting opinions. The information security level of user's terminal should not be deteriorated when using these applications and contents. Agencies need to implement information security measures when providing applications and contents. In addition, when subcontracting the development and provisions of applications and contents, the requirements in section 4.1.1 "Subcontracting" should be observed.

Compliance Requirements

- (1) Establishment/maintenance of provisions related to creation of applications and contents
 - (a) The head information security officer should maintain provisions to prevent actions which cause deterioration of information security level of the systems other than those of their own Agencies when providing applications and contents.

- (2) Formulation of security requirements for applications and contents
 - (a) Information security officer shall include the following items in the specifications of applications and contents, in order not to deteriorate the level of information security of the users other than those of their own Agencies.
 - (i) Applications and contents to be provided shall contain no malware.
 - (ii) Applications and contents to be provided shall contain no vulnerability.
 - (iii) The contents shall not be provided in the format of an executable program, except for cases in which there is no other way to provide them.
 - (iv) Means to verify that the applications and contents are authentic and free from manipulation, such as a signature that uses a digital certificate and likewise shall be provided to the recipients of the applications and contents.
 - (v) When developing applications and contents, methods of providing them shall be selected to ensure the users of the OS and software will not be prompted to change the setting which might deteriorate the information security level, including the changes which force them to use the OS version and software, etc. with vulnerabilities.
 - (vi) Applications and contents should be developed ensuring that functions not essential for using the service, such as those which allow third parties to obtain the information of service users and other parties against their will, are not incorporated in the applications or contents.
 - (b) When subcontracting the development and creation of applications and contents, employees shall include the requirements listed in each item of the preceding paragraph.

6.3.2 Measures upon providing applications and contents

Purpose

Agencies prepare websites and make them available to citizens to offer administrative services such as providing information, executing administrative procedural tasks, and collecting opinions. As these services are normally provided through the internet, it is important for citizens to be sure that these services are genuinely offered by authentic Agencies. Furthermore, if no measures are taken against websites which impersonate Agencies, there would be a fear that the public trust for them would be undermined, and also that the citizens could be directed to unauthorized websites, and infected with malware. Therefore, it is essential to implement measures to respond to such situations.

Compliance Requirements

- (1) Use of government domain name
 - (a) Information system security officers shall use government domain name in the information systems so that the users can confirm that the websites offered to users outside the Agency are provided by the actual Agency itself. However, this shall not apply in the following instances.
 - (i) In the event that a Designated Corporation is not eligible to register a government domain name. In such cases, said corporation must use a domain name, which requires

the corporation's organizational affiliation as its eligibility for obtaining so that it cannot be obtained by unspecified individuals or organizations.

- (ii) In the event that an educational institution, which is either an Incorporated Administrative Agency or a Designated Corporation, uses a domain name for institutes of higher education. In such cases, the corporation in question must make a decision in advance based on a comparative consideration of whether it should use a government domain name or domain name for higher educational institution from the perspective of ensuring information security.
 - (iii) In the event that information is disseminated via the social media services listed in 8.1.2(1).
 - (b) When subcontracting the creation of a website for users outside the Agency, the use of domain names applicable to the Agencies in question shall be specified in the procurement specifications, pursuant to the provisions of (i) and (ii) in the above item and the areas not listed in the same item.
- (2) Prevention of users from being lured to malicious websites
- (a) Information system security officers shall implement measures to prevent users from being lured, through pages such as search engine sites, to malicious websites which impersonate Agencies.
- (3) Notification of applications and contents
- (a) When notifying users of applications and contents, employees shall implement the measures in order to ensure that general users are led to use said applications and contents.
 - (b) When notifying users of applications and contents provided by the parties other than their own Agencies, employees shall keep the effectivity of URL and so on in notification.

Chapter 7 Information Systems Components

7.1 Terminals, Server Equipment

7.1.1 Terminals

Purpose

When using terminals, there are risks such as leakage of stored information due to external causes, such as malware infection and intrusions. Moreover, internal causes such as improper system handling or negligence of employees might result in information security incidents, including malware infection. As for the mobile use of terminals, there is a higher risk of information leakage caused by theft or loss and so on, of the device. These issues should be taken into consideration when implementing measures.

Terminals provided by Agencies should be used when executing the work of the Agencies. However, it is considered that there are situations where use of non-Agency-furnished terminals is necessary to process information, such as while on business trips or away from the office. In such situations, the level of security standards for information processed on such terminals may not meet the Agency's standards. Therefore, in cases where the possibility exists that non-Agency-furnished terminals will be used for work, it is essential to properly assess whether the information security standards required for this use can be ensured, restrict available functions of and take additional security measures for such terminals, and then have employees use such terminals under the strict control of the Agency so that they are able to perform the work.

In addition to the requirements in this provision, requirements regarding measures for functions such as user/entity authentication, access control, authority control, and log management in section 6.1 "Security Functions for Information Systems", section 6.2.1 "Measures against software vulnerabilities", section 6.2.2 "Measures for protection against malware", and section 7.3.2 "IPv6 communication lines" should also be complied with.

Compliance Requirements

- (1) Measures when introducing terminals
 - (a) For terminals which handle classified information, information system security officers shall implement measures against physical threats such as theft and unauthorized removal of terminals, unauthorized use of terminals by malicious third parties, as well as unauthorized viewing of display devices of terminals.
 - (c) To eliminate the possible increase in vulnerability due to use of variety of software, information system security officers shall specify the software which is approved, or prohibited to be used on the terminals.

- (2) Measures when operating the terminals
 - (a) Information system security officers shall periodically conduct a review of software which is approved, or prohibited to be used on the terminals.
 - (b) Information system security officers shall periodically verify the status of all software used on the terminals under their management, and implement corrective measures when

identifying any terminal in inappropriate status, and so on.

- (3) Measures when terminating the operation of terminals
 - (a) Information system security officers shall erase all the information stored on the external storage media of the terminal when terminating its operation.
- (4) Measures for the adoption and use of Agency-furnished terminals (only when used outside of areas requiring control measures)
 - (a) In preparation for cases where employees handle classified information through the use of Agency-furnished terminals (only when used outside of areas requiring control measures), head information security officers shall establish usage protocols and approval procedures, taking into account the risks of information leakage from these terminals and the communication lines used.
 - (b) Head information security officers shall establish provisions related to technical measures to prevent the theft of data as a result of theft, loss, infection with malware, etc. for Agency-furnished terminals (only when used outside of areas requiring control measures) that handle confidential information.
 - (c) In cases where approval is granted to connect Agency-furnished terminals connected to communication lines outside the Agency outside of areas requiring control measures to communication lines inside the Agency after whether or not to approve this has been reviewed and a decision to approve has been made, the head information security officers shall establish provisions related to security control measures and approval procedures that take into account the risk of information systems being infected with malware from said terminals via communication lines inside the Agency.
 - (d) When employees use Agency-furnished terminals (only when used outside of areas requiring control measures) to handle confidential information, information system security officers shall take technical measures referred to in (b) of this section 7.1.1(4) for the corresponding terminals.
- (5) Measures for the adoption and use of non-Agency-furnished terminals
 - (a) The chief information security officer shall determine the advisability of using non-Agency-furnished terminals at the Agency by taking into consideration the prospects for meeting the required information security standards when doing so. This determination shall also be based on factors such as the classification of the information to be handled and restrictions on handling it, the security control measures taken by the Agency, and the understanding that the management of the terminal in question is carried out by its owner instead of the Agency.
 - (b) The head information security officer shall establish procedures for granting approval and so on when employees perform information processing pertaining to the Agency's work through the use of non-Agency-furnished terminals.

- (c) In preparation for cases where employees handle classified information through the use of non-Agency-furnished terminals, the head information security officer shall establish usage protocols and approval procedures, taking into account the risks of information leakage from these terminals and the communication lines used.
- (d) The head information security officer shall establish the following provisions related to security control measures for non-Agency-furnished terminals that handle confidential information:
 - (i) Technical measures to prevent the theft of data as a result of theft, loss, infection with malware, etc.
 - (ii) Usage measures to prevent the theft of data as a result of infection with malware or the like
- (e) In cases where approval is granted to connect non-Agency-furnished terminals connected to communication lines outside the Agency outside of areas requiring control measures to communication lines inside the Agency after whether or not to approve this has been reviewed and a decision to approve has been made, the head information security officer shall establish provisions related to security control measures and approval procedures that take into account the risk of information systems being infected with malware from said terminals via communication lines inside the Agency.
- (f) Information security officers shall designate officers responsible for managing the implementation status of security control measures concerned with processing the information involved in the Agency's operations through the use of non-Agency-furnished terminals (hereinafter referred to as "terminal management officers").
- (g) When employees use non-Agency-furnished terminals to handle confidential information, terminal management officers shall take the security control measures established in (d)(i) of this section 7.1.1(5) for the corresponding terminals.
- (h) Terminal management officers shall have employees take those security control measures established in (d)(i) of this section 7.1.1(5) that they cannot take on their own despite the provisions of the previous paragraph, as well as those security control measures established in (d)(ii) of this section 7.1.1(5), for non-Agency-furnished terminals used to handle confidential information.
- (i) Employees shall take those security control measures established in (d)(i) in the previous paragraph that the terminal management officer cannot take on his/her own, as well as those security control measures established in (d)(ii) of this section 7.1.1(5), for non-Agency-furnished terminals used to handle confidential information.
- (j) When processing information pertaining to the Agency's work through the use of non-Agency-furnished terminals, employees shall obtain the approval of the relevant terminal management officer.
- (k) Upon completion of the purpose of information processing, employees shall delete all classified information from non-Agency-furnished terminals.

7.1.2 Server equipment

Purpose

Server equipment such as e-mail servers, webservers, and file servers normally store large size of information, so that the impact of leakage and manipulation of such information is far larger than that of terminals. In addition, server equipment is subject to a higher risks of malware infection and intrusions, because their functions are generally utilized via communication lines. If the server equipment used by Agencies were used for unauthorized access or relaying spam e-mails, it would seriously undermine the public trust in these Agencies.

Moreover, as a large number of users simultaneously use server equipment, failure of its functions would result in a greater impact. These issues should be taken into consideration when implementing measures.

In addition to the requirements in this provision, requirements regarding measures for functions such as user/entity authentication, access control, authority control, and log management set forth in section 6.1 “Security Functions for Information Systems”, as well as requirements concerning server equipment set forth in section 6.2.1 “Measures against software vulnerabilities”, section 6.2.2 “Measures for protection against malware”, section 6.2.3 “Measures against denial-of-service attacks”, and section 7.3.2 “IPv6 communication lines” should be complied with. For e-mail servers, webservers, DNS servers, and database in particular, the requirements set forth in section 7.2 “E-mails, Web, and so on” should be complied with, in addition to the common measures stipulated in this provision.

Compliance Requirements

- (1) Measures when implementing server equipment
 - (a) For server equipment which handles classified information, information system security officers shall implement measures against physical threats such as theft and unauthorized removal of server equipment, unauthorized use of server equipment, as well as unauthorized viewing of display devices of server equipment.
 - (b) To prevent situations where services are suspended due to failure, excessive access, and other problems with information systems which handle vital information, information system security officers shall ensure system’s availability by setting up the server equipment for such services in a redundant configuration, and so on.
 - (c) To eliminate the possible increase in vulnerability due to use of variety of software, information system security officers shall specify the software which is approved, or prohibited to be used on the server equipment.
 - (d) Information system security officers shall implement measures to prevent leakage of information sent and received while the server equipment maintenance is being performed via communication lines.

- (2) Measures when operating the server equipment
 - (a) Information system security officers shall periodically conduct a review of software which is approved, or prohibited to be used on the server equipment.
 - (b) Information system security officers shall periodically verify the software and configuration of all server equipment under their management, and implement corrective measures when identifying any server equipment in inappropriate status, and so on.
 - (c) Information system security officers shall implement measures to monitor the server equipment in case it is necessary to detect the occurrence of unintended incidents such as malicious acts and unauthorized access to the server equipment. However, this shall not be applied if such monitoring is deemed unnecessary due to the usage environment of the server equipment.
 - (d) For server equipment handling vital information, information system security officers shall implement measures which enable to recover the operation in case where the server equipment becomes unavailable.

- (3) Measures when terminating the operation of server equipment
 - (a) Information system security officers shall delete all information stored on the external storage media of server equipment when terminating its operation.

7.1.3 Multifunction devices and equipment for specific purposes

Purpose

Multifunction devices, containing a combination of printer, fax, image scanner, and copier functions, are used at Agencies. These multifunction devices are often connected to internal communication lines, as well as to the public telephone networks and other communication lines when in use, in which case various kinds of threats are expected, because many services including web console, file transfer, file sharing, as well as remote maintenance will be operating on such devices.

Moreover, information systems for specific purposes, such as systems for video conference, IP phone, network camera, entry control systems, facility management systems, and environment monitoring systems are also used at Agencies. With such information systems, in addition to devices for general purposes, equipment for specific purposes with functions needed to achieve the objectives dedicated to the system are also used. Furthermore, so-called IoT devices, which are connected to the internet, are included among equipment for specific purposes. Numerous attacks that exploit vulnerabilities in these IoT devices have occurred in recent years, and attacks such as those in which IoT devices are used as a jumping-off point to attack other information systems have come to pose a social problem. Therefore, information security measures must be taken for these devices as well.

Given these situations, it is important to treat these multifunction devices and equipment for specific purposes, including IoT devices, as part of the information system components, and to implement measures in an appropriate manner by assigning personnel and clarifying who is in charge.

Compliance Requirements

- (1) Multifunction devices
 - (a) When procuring multifunction devices, information system security officers shall establish appropriate security requirements according to functions, installation environments, as well as classification and handling restrictions of information handled by such devices.
 - (b) Information system security officers shall implement measures for information security incidents against multifunction devices while in operation, by taking actions such as to appropriately set up the functions available on said devices.
 - (c) Information system security officers shall delete all information stored on the external storage media of multifunction device when terminating its operation.

- (2) Equipment for specific purposes, including IoT devices
 - (a) For equipment for specific purposes, if there are possible threats depending on information handled, methods of use, and connection types of the communication lines and so on, information system security officers shall implement measures suitable for the characteristics of said equipment

7.2 E-mail, Web, and others

7.2.1 E-mail

Purpose

As sending and receiving e-mails is nothing but an exchange of information, there are risks against confidentiality, including information leakage caused by inappropriate use, as well as risks that employees who use e-mail to be victimized by illegal acts abusing e-mails, such as impersonation by malicious third parties. In order to prevent these problems, proper e-mail server management is essential.

In addition to the requirements in this provision, the same for the server equipment in section 7.1.2 “Server equipment” should be complied with.

Requirements

- (1) Measures when introducing e-mail services
 - (a) Information system security officers shall set up the e-mail servers, ensuring no illegal e-mail relaying occurs.
 - (b) Information system security officers shall provide functions of user/entity authentication when sending and receiving e-mails between e-mail clients and servers.
 - (c) Information system security officers shall implement measures to prevent e-mail spoofing.
 - (d) Information security officers shall take measures to encrypt communications between e-mail servers in order to prevent the theft or manipulation of e-mails sent over the internet.

7.2.2 Web

Purpose

Webservers are open to public access on the internet and under constant risk of attacks. As possible damage includes manipulation of web contents (information published on web pages), webservers to be made unavailable, and inducement to false website, it is necessary to address such damage by combining appropriate measures and implement them.

In addition to requirements in this section, the same for the server equipment in section 7.1.2 “Server equipment” should be complied with.

Compliance Requirements

- (1) Measures when introducing and operating webservers
 - (a) For management and setting of webservers, information system security officers shall implement measures to ensure information security, including the following items.
 - (i) Unnecessary functions of webservers shall be stopped or restricted
 - (ii) Personnel responsible for editing web contents shall be limited.
 - (iii) Manage web contents to ensure no senseless nor prohibited contents shall be published.
 - (iv) Terminals used for editing web contents shall be restricted, and ID codes and user/entity authentication information shall be appropriately managed.
 - (v) Measures for encryption and authentication by digital certificates shall be taken for all information in order to prevent the eavesdropping or manipulation of information sent over the internet.
 - (b) Information system security officers shall verify the information saved on webservers, and ensure no information unnecessary for providing services is stored therein.
- (2) Measures when developing and operating web applications
 - (a) When developing web applications, information system security officers shall implement measures to eliminate known vulnerabilities of existing web applications. In addition, these measures shall be periodically reviewed during operation for any oversights, and appropriate action should be taken when identifying such oversights.

7.2.3 Domain Name Systems

Purpose

A domain name system (DNS: Domain Name System) is hierarchical and decentralized system on the internet which is mainly used to manage correspondence (forward lookup and reverse lookup) between host names on the internet or domain names in E-mail and IP addresses. DNS serves, after receiving queries from clients (DNS clients) including terminals to return responses such as corresponding relationships between IP addresses and domain names and host names. DNS includes content servers which return responses to queries about the domains which the government agency manages and cache servers which make queries to content servers according to queries from DNS

clients. If a cache server becomes unavailable, the websites and e-mails which use the host names and the domain names, etc. will be unusable. In addition, if the integrity of information supplied by a content server is compromised and incorrect information is provided, there is a risk of damage such as DNS clients, including terminals, will be connected to malicious servers. Furthermore, if there is any error in the setting of a DNS, detection of e-mail spoofing becomes impossible, because the DNS partially handles the measure against spoofing of e-mails. To avoid such problems, appropriate DNS server management is essential.

In addition to the requirements in this provision, the same for server equipment in section 7.1.2 “Server equipment” should be complied with.

Compliance Requirements

- (1) Measures when introducing the DNS
 - (a) For the content servers which provide name resolution to information systems handling vital information, information system security officers shall implement measures to ensure there is no interruption to the name resolution.
 - (b) For the cache servers, information system security officers shall implement measures to ensure appropriate responses to the name resolution queries.
 - (c) When the content servers are used to provide the resolution of the names exclusive to their own government agency, information system security officers shall implement measures to ensure no such information managed in said content server is leaked outside of the Agencies.

- (2) Measures when operating the DNS
 - (a) When installing multiple DNS content servers, information system security officers shall maintain consistency among the servers with regards to the information of the domains under their management.
 - (b) Information system security officers shall periodically verify the accuracy of the information about the domains managed on the DNS content servers.

7.2.4 Database

Purpose

“Database” described in this provision means server equipment composed of database management system and the data files, which stores classified information, which manages the data constructed systematically and has several functions which can easily serve for searching, extracting and so forth. There are various risks for database which stores classified information, for example, the risk by external factors such as malware infection or the unauthorized access and the risk by the internal factors such as the inappropriate use or negligence by employees. It is necessary to take technical measures to prevent an abuse of the administrator authority.

Especially, a database storing a large quantity of data may will be a target of cyber-attacks. Breach of such a database has considerable impact on administrative affairs.

In addition to the requirements in this provision, requirements regarding measures for functions such as user/entity authentication, access control, log management, and encryptions and digital signatures

in section 6.1 “Security Functions for Information Systems”, section 6.2.1 “Measures against software vulnerabilities”, section 6.2.2 “Measures for protection against malware”, and section 7.3.2 “IPv6 communication lines” should also be complied with.

Compliance Requirements

- (1) Measures when implementing or operating the database
 - (a) Information system security officers shall appropriately perform authority control of administrator’s privileges to prevent malicious operations which are internally performed.
 - (b) Information system security officers shall implement appropriate measures to specify the users who access data stored in database.
 - (c) Information system security officers shall implement measures to detect malicious operations which are performed by a user having authority to access internal data.
 - (d) Information system security officers shall implement measures to prevent malicious operations of data, which abuses the vulnerabilities of database or equipment, etc.
 - (e) Information system security officers shall appropriately encrypt the data which have to be prevented from leaking caused by malicious method or theft of electric and magnetic storage media.

7.3 Communication Lines

7.3.1 Communication lines

Purpose

Most of unauthorized access and denial-of-service attacks against server equipment and terminals are carried out through the communication lines and the communication line equipment. Therefore, when implementing information security measures for communication lines and communications line equipment, it is necessary to examine potential risks thoroughly and implement measures at the constructing phase of information systems. Types of information security risks vary depending on the communication line providers and the physical line types. These differences should be fully taken into account when implementing measures.

In addition, configuration of the communication lines and conditions of information systems connected to them at the launch of information systems may change after operating them for a certain period of time. Also, there may be some changes in types of attacks.

The measures estimated to be sufficient at the construction phase of information systems may become insufficient, so it is vital to continually implement measures throughout the operation of communication lines.

Compliance Requirements

- (1) Measures when installing communication lines
 - (a) During the communication lines installation, information system security officers shall select appropriate line types according to the classification and handling restrictions of the information handled by the information systems connected to the communication lines, and

implement measures necessary for said lines to prevent impacts of information security incidents.

- (b) Information system security officers shall have the communication lines equipped with the functions to perform access control and route control on the server equipment and terminals.
 - (c) Information system security officers shall implement measures to ensure the confidentiality of communication contents, if assuring the confidentiality thereof is deemed necessary when connecting information systems handling confidential information to the communication lines.
 - (d) Information system security officers shall implement measures, which enable them to confirm that the information system is the one that employees are approved to be connected to the communication lines. The same shall apply when connecting non-Agency-furnished terminals to communication lines inside the Agencies.
 - (e) Information system security officers shall install communications line equipment in the areas requiring control measures. However, when it is difficult to install them in said areas, measures such as physical protections to keep the equipment from destruction and unauthorized operation by malicious third parties shall be implemented.
 - (f) Information system security officers shall implement measures to ensure continuous operation of communication lines connected to the information systems handling vital information.
 - (g) When connecting the internal communication lines to the external communication lines such as internet access lines and public communication lines, information system security officers shall implement measures to ensure the information security of the internal communication lines and the information systems connected to them.
 - (h) Information system security officers shall implement measures to monitor communication contents sent and received between the internal communication lines and the external communication lines.
 - (i) Information system security officers shall specify the software required for operating communication line equipment and maintain/establish authorization procedures for changing software. This shall not be applied to the communication line equipment whose software is difficult to change.
 - (j) Information system security officers shall ensure information security of remote access, where communication line equipment are remotely accessed for maintenance and diagnosis.
 - (k) When using communication line services of telecommunication carriers, information system security officers shall establish agreements, upon signing a contract with the subcontractors who construct information systems, on measures to ensure the level of information security of said line services as well as its service level.
- (2) Measures when operating communication lines
- (a) Information system security officers shall implement measures required to prevent information security incidents during the operation of communications line equipment.

- (b) Information system security officers shall appropriately perform route control and access control, and review its settings when any change made to the communication lines and the requirements for establishing communication. This review shall also be conducted periodically.
 - (c) Information system security officers shall periodically check the status of software required for operating communications line equipment, and implement corrective measures if any improper status is detected, such as unauthorized software is installed on the equipment.
 - (d) In the event of incidents which endanger information security of certain information system, information security officers shall protect other information systems which share the communication lines with the endangered information system, by changing the line configuration to establish a closed and independent communication line, separated from the shared ones.
- (3) Measures when terminating the operation of communication lines
- (a) When terminating the operation of communication line equipment, information security officer shall take appropriate measures, such as erasing all the information recorded on the external storage media on said equipment to prevent leakage of information stored during the operation, in case that such equipment composing the communication lines are reused or discarded after terminating its operation.
- (4) Measures when introducing wireless LAN environments
- (a) When constructing the internal communication lines with wireless LAN technologies, information system security officers shall, on top of implementing the common measures for communication line construction, encrypt the communication routes to ensure the confidentiality of communication contents, then implement other measures required to ensure information security.

7.3.2 IPv6 communication lines

Purpose

Agencies have been taking initiatives to comply with the IPv6 communication protocol, but there are many issues to be considered when applying the protocol, such as direct IP reachability and co-existing of two different protocols during the migration from the IPv4 communications protocol.

In recent years, a large number of server equipment, terminal, and communication line equipment, etc. which are equipped with IPv6 communication technology (hereinafter referred to as “IPv6 communications”) by default have been released. When using these products, unintended IPv6 communications could occur on the communication network, which may be abused for unauthorized access. Therefore, necessary measures should be implemented.

There will be further changes in IPv6 technology trends, while the associated information security measures are expected to develop further, making it essential for Agencies to closely watch these

technological trends of information security and duly respond to them.

Compliance Requirements

- (1) Measures related to information systems with IPv6 communications
 - (a) When constructing information systems using IPv6 technologies for communication, information system security officers shall select, when possible, a Phase-2 compliant product based on the IPv6 Ready Logo Program, as the equipment, etc. to procure.
 - (b) For information systems to be constructed are expected to perform communication with IPv6 technology, information system security officers shall take into account the characteristics of IPv6 communication and so on, and review the threats and vulnerabilities including the following items, and shall implement necessary measures.
 - (i) Threats related to direct IP reachability via global IP addresses
 - (ii) Threats related to unauthorized access due to incomplete settings of IPv6 communication environments, and so on.
 - (iii) Vulnerabilities due to lack of consideration for the required process when IPv4 and IPv6 communications coexist in the information system.
 - (iv) Vulnerabilities due to lack of consideration for the required IPv6 addresses handling on the applications.
- (2) Control and monitor for unintended IPv6 communications
 - (a) When connecting server equipment, terminals and communications line equipment to communication lines for which no IPv6 communication is intended, the information system security officers shall implement measures to control IPv6 communications in order to prevent information security threats caused by unauthorized IPv6 communications received from said lines, such as arrival of unexpected IPv6 communication packets as a result of automatic tunneling functions.

Chapter 8 Use of Information Systems

8.1 Use of Information Systems

8.1.1 Use of information systems

Purpose

Employees use a wide range of information systems, including e-mail, web, and the systems for processing tasks on terminals, in order to execute their duties. There is a risk for information security incidents if these systems are not used appropriately.

Therefore, it is essential to maintain/establish provisions related to the use of information systems, and employees should comply with the provisions when using the systems.

Refer to Compliance Requirements in 7.1.1(4) for the establishment/maintenance of provisions related to Agency-furnished terminals (only when used outside of areas requiring control measures), and to Compliance Requirements in 7.1.1(5) for the establishment/maintenance of provisions related to non-Agency-furnished terminals.

Compliance Requirements

- (1) Establishment/maintenance of provisions related to the use of information systems
 - (a) The head information security officer shall establish/maintain provisions related to information security when using information systems at Agencies.
 - (b) The head information security officer shall establish procedures for handling information using external electromagnetic recording media, such as USB memory sticks. The following items shall be included in these procedures.
 - (i) Employees shall use external electromagnetic recording media provided by national administrative organs, incorporated administrative agencies, or designated corporations, or received from organizations other than the Agency with which their Agency has concluded an agreement over complying with handling information through the use of external electromagnetic recording media, stipulated in the usage protocols regulated by this provision.
 - (ii) External electromagnetic recording media received from an organization other than one's own shall only be used for the purpose of transporting information between one's own Agency and the organization in question. The necessary measures shall be taken to ensure safety when reading information from or writing information to the external electromagnetic recording media in question.
 - (c) The head information security officer shall establish approval procedures for taking external electromagnetic recording media, such as USB memory sticks, to which confidentiality class-3 information, critical information, or vital information has been recorded outside of areas requiring control measures.
- (2) Measures to encourage information systems users to comply with the provisions
 - (a) Information system security officers shall examine, from perspectives of information

security risks and work efficiency, the scope of support functions which encourage employees to comply with the provisions, and shall construct the information systems equipped with such functions.

- (3) Basic measures for the use of information systems
 - (a) Employees shall not use information systems for non-work related tasks.
 - (b) Employees shall not connect the information systems at their own Agencies to the communication lines other than the ones so authorized by information system security officers.
 - (c) Employees shall not connect the information systems which are not authorized by information system security officers, to the internal communication lines at Agencies.
 - (d) Employees shall not use any software prohibited to use on information systems. If using unauthorized software is required to execute tasks, an approval from the information system security officer shall be granted.
 - (e) Employees shall not connect unauthorized equipment, etc. to information systems,
 - (f) In such cases when an employee leaves the area where information systems are installed and there is a risk for unauthorized operation by third parties, he or she shall implement measures to protect the systems from unauthorized use.
 - (g) When handling classified information through the use of Agency-furnished terminals (only when used outside of areas requiring control measures) and non-Agency-furnished terminals, employees shall follow the prescribed usage protocols.
 - (h) When using the terminals listed in the following items to handle the information stipulated in the said items, employees shall obtain the permission of the division/office information security officer.
 - (i) Agency-furnished terminals (only when used outside of areas requiring control measures): Confidentiality class-3 information, critical information, or vital information
 - (ii) non-Agency-furnished terminals: Classified information
 - (i) When connecting terminals (including non-Agency-furnished terminals) connected to communication lines outside the Agency outside of areas requiring control measures to communication lines inside the Agency in areas requiring control measures, employees shall take the established security control measures.
 - (j) When connecting terminals (including non-Agency-furnished terminals) connected to communication lines outside the Agency outside of areas requiring control measures to communication lines inside the Agency in areas requiring control measures, employees shall obtain the permission of the division/office information security officer.
 - (k) When taking external storage media, such as USB memory sticks, to which confidentiality class-3 information, critical information, or vital information has been recorded outside of areas requiring control measures, employees shall obtain the permission of the division/office information security officer.

- (4) Measures when using e-mail and web
 - (a) When sending and receiving e-mails containing confidential information, employees shall use e-mail services provided by the servers which are operated by, or outsourced by, their own Agencies.
 - (b) When sending and receiving information by e-mail to parties outside their own Agencies, employees shall use their government's domain name as the domain name of such e-mail's sender address. However, this does not apply in the cases listed below.
 - (i) In the event that a Designated Corporation is not eligible to register a government domain name. In such cases, the said corporation's organizational affiliation serves as its eligibility requirement, and it must use a domain name that cannot be obtained by unspecified individuals or organizations.
 - (ii) In the event where it has been determined that a corporation that is an educational institution and is either an Incorporated Administrative Agency or Designated Corporation is using a domain name for higher education institutions.
 - (iii) In the event that the party of the outside Agencies receiving an e-mail can acknowledge that it has been sent from an employee (only in cases where a government domain name or domain name obtained pursuant to the previous two items cannot be used).
 - (c) When receiving suspicious e-mails, employees shall handle them following the prescribed procedures.
 - (d) When it is necessary to review the web client settings, employees shall not make any setting changes which might impact on the information security.
 - (e) When downloading the software to the server equipment or terminals on which the web client is running, employees shall check the integrity of the software by verifying its distributor's digital signatures.
 - (f) When inputting and submitting the confidential information in a web form on the website they are viewing, employees shall ensure the followings.
 - (i) The contents to be submitted will be encrypted.
 - (ii) The website genuinely belongs to the organization where the contents are intended to.
- (5) Handling of identification codes and user/entity authentication information
 - (a) Employees shall not use the information system by accessing the system through user/entity authentication with identification codes other than the ones assigned to them.
 - (b) Employees shall appropriately manage the identification codes assigned to them.
 - (c) If an employee is granted an identification code with administrator privileges, the use of such identification code shall be limited to only when they execute administrator's tasks.
 - (d) Employees shall manage their user/entity authentication information with utmost care.

- (6) Measures for the use of encryption and digital signatures
 - (a) Employees shall follow the prescribed algorithms and methods when encrypting information, as well as assigning the digital signatures to the information.
 - (b) Employees shall follow the prescribed key management procedures, and appropriately manage the keys for decrypting the encrypted information, as well as those for assigning digital signatures to information.
 - (c) Employees shall take the backup of the key, following the prescribed backup procedures of the keys for decrypting the encrypted information.

- (7) Prevention of malware infection
 - (a) Employees shall make efforts to implement measures against malware infection.
 - (b) If an employee becomes aware that an information system (including non-Agency-furnished terminals) could have been infected by malware, he or she shall implement necessary measures, such as to immediately disconnect the infected information system (including non-Agency-furnished terminals) from the communication lines.

- (8) Measures when a web conference services is used
 - (a) Employees shall follow procedures prescribed by Agencies to implement information security measures according to participants in and information handled during a web conference.
 - (b) Employees shall, when holding a web conference, take measures so that any person not related to the conference is unable to participate therein.

8.1.2 Dissemination of information via social media services

Purpose

Social media services are now being generally used by Agencies for proactive public relations activities and other purposes. However, it is necessary to make sure that the citizens can verify whether the account is authentic, because the government domain name is inapplicable in such social media services provided by the private sector. Furthermore, there is the possibility of hijacking of the Agencies' accounts, as well as a situation where vital information cannot be disseminated due to unannounced discontinuation of these social media services. Therefore, when widely disseminating vital information to the citizens, it is necessary to consider methods of disseminating information to enable the citizens to access the original information sources. In addition, the originator of the information needs to implement measures against threats such as impersonation, to protect parties including the citizens from confusions caused by false information.

Also, these social media services undergo rapid technology developments such as functionality expansion and additional services, so it is essential to promptly respond to changes in these external environments, including the business trends of the providers of such services.

While social media services become available only on consent to standard general terms and conditions, terms of services, etc., it is generally difficult to satisfy necessary and sufficient security

requirements for the handling of confidential information. Therefore, social media services shall be used only in cases where confidential information is not handled and the level of information management required for subcontractors is not high.

Compliance Requirements

- (1) Measures for dissemination of information via social media services
 - (a) The head information security officer shall establish information security measures related to operational procedures which include the following items, given that the social media services are used with the accounts managed by Agencies. The head information security officer shall also stipulate that no confidential information should be handled when using such services.
 - (i) Measures to prevent impersonation, such as to clearly indicate the Agency which manages the accounts, in order to assure the information disseminated from accounts of Agencies is genuinely originated from authentic Agencies
 - (ii) Measures to prevent unauthorized access, such as proper management of passwords and other information for user/entity authentication
 - (b) When using social media services to provide vital information to the citizen, employees shall make such information available for viewing on their own Agencies' websites.

8.1.3 Teleworking

Purpose

While it is required that an environment in which flexible work styles are easily adopted be established and maintained pursuant to the execution plan for the realization of work style reform (Decision of the Council for the Realization of Work Style Reform on March 28, 2017), it is decided that employees are not always required to come to their working government offices for work for the performance of their own tasks, but are required to adopt a work style in which they perform their tasks remotely at home, a satellite office, or the like. Also in the situation where employees are requested to refrain from coming to their working government offices for work as infection prevention measures for a large-scale infectious disease, it is necessary to establish and maintain the teleworking environment so that most of employees are able to perform their tasks in any place other than their working government offices.

As Provision 8.1.3 only focuses on measures required for the implementation of teleworking only are provided. Therefore, in addition to this provision 8.1.3, refer to 3.1.1 "Information handling," 7.3.1 "Communication lines" and 8.1.1 "Use of information systems," as well as Compliance Requirements of 7.1.1, section 7.1.1(4) "Measures for the adoption and use of Agency-furnished terminals (only when used outside of areas requiring control measures)" and section 7.1.1(5) "Measures for the adoption and use of non-Agency-furnished terminals."

Compliance Requirements

- (1) Establishment of operative provisions
 - (a) The head information security officer shall establish provisions related to information security measures when implementing teleworking. In principle, it shall be provided that teleworking shall be performed using Agency-furnished terminals.

- (2) Measures for teleworking environment
 - (a) Information system security officers shall ensure security for communication paths and against attacks peculiar to remote access when an information system that remotely accesses information systems at Agencies via communication lines outside the Agency due to the implementation of teleworking is constructed.
 - (b) Information system security officers shall perform multiple factor authentications for remote access.
 - (c) Information system security officers shall take measures so that terminals used for remote access are limited to approved terminals.
 - (d) Information system security officers shall limit terminals used for remote access to terminals on which the latest vulnerability or anti-malware measures are available.

- (3) Measures for teleworking operations
 - (a) Information system security officers shall specify items to be checked by employees before and after the implementation of teleworking and have employees carry out the check.
 - (b) Employees shall select locations where teleworking is implemented so that shoulder surfing and eavesdropping can be prevented, and when implementing teleworking in any location other than at home, beware of theft while leaving their work desks.
 - (c) In principle, employees shall not implement teleworking using communication lines outside the Agency, on which information security measures are uncertain or insufficient.