Overview of Certification System for Terminal Equipment in Japan

29 March, 2012
Telecommunication Systems Division
Telecommunications Bureau
Ministry of Internal Affairs and Communications (MIC)
1. Outline of Certification System (P.2)
2. Outline of Regulations Related to Certification System (P.9)
3. Explanations of Main Articles Related to After-the-fact Regulations (P.13)
4. After-the-fact Regulations and Market Surveillance (P.22)
5. Technical Conditions for Terminal Equipment (P.24)
6. System Update (P.30)
1. Outline of Certification System
About Certification

According to the regulations, Conformity Assessment Bodies (CAB) in the private sector certifies the conformity with the technical conditions of terminal equipment.

Technical conditions are established in the purpose of preventing any damage in telecommunication circuit facility.

Certification Procedure

Manufacturers submit documents for technical conditions compliance approval → CAB → Examine the conformity to technical conditions → Certification → Label indicating the conformity with technical conditions → Back cover of a mobile phone

In Japan

Certification Advantage

[Terminal Equipment]
- Not required to examine the connection to the telecommunication networks.
- Not required that installation technician conducts or supervises installation work when connection method of the terminal is plug-in phone jack, radio wave, etc.

Category Types of Terminal Equipment

- **Category Type A1**
  Terminal equipment for phone calls
  (Article 4 Item 1 of Ordinance concerning technical conditions compliance approval etc. for terminal equipment)

- **Category Type A2**
  Other types of terminal equipment
  (Article 4 Item 2 of Ordinance concerning technical conditions compliance approval etc. for terminal equipment)
Category Types for Scope of Registration (Terminal Equipment)

- **Category Type A1**
  Terminal equipment for phone calls
  e.g.)
  - Analog Telephone
  - Mobile Telephone (without packet communication function)
  - IP Telephone (with 0AB-J numbers, for call only)

- **Category Type A2**
  Other types of terminal equipment
  e.g.)
  - FAX
  - Modem
  - Data Communication Card Device for PHS, 3G or BWA
  - Pager
  - IP terminals (including Wi-Fi Products, without phone call function)
  - IP Telephone (except 0AB-J numbers)

- **Category Type A1&A2**
  Terminal equipment placed in both category types
  e.g.)
  - FAX with phone
  - Mobile Telephone (with packet communication function)
  - ISDN Terminal Adaptor
In order to prevent damages to the telecommunications circuit facility, the terminal equipment connected to telecommunications circuit facility needs to comply with technical conditions provided in the Ordinance Concerning Terminal Facilities, etc.

“Technical conditions for Connections of Terminal Facility”
(general rules)
- The telecommunications circuit facility shall not be damaged, nor shall functions thereof be impaired.
- Any disturbance shall not be caused to other users.
- The demarcation point of responsibilities with telecommunications circuit facility shall be clearly stipulated.

Technical conditions compliance inspection of terminal facility by telecommunications carriers.

Technical conditions compliance approval of terminal equipment by the registered approval body.

Self-confirmation of technical conditions compliance of terminal equipment by the manufacturers.

Connection of terminal facility to telecommunications circuit facility.

The right of maintenance inspection by the telecommunications carrier.

The inspections of connection by the telecommunications carriers which operate telecommunication network are waived when the technical conditions compliance approval are obtained.
In principle, technical conditions referred in the Telecommunications Business Act **should be applied to the terminal equipment connected to the telecommunications network.** (e.g. telephone, modem, and router)

The technical conditions should also be applied to the terminal equipment connected through radio waves (e.g. mobile telephone)

* Please note that there are certain types of telecommunications terminal equipment which certifications from both of the Radio Act and the Telecommunications Business Act are required.

Label of Technical Conditions Compliance Approval of Terminal Equipment

![Label of Technical Conditions Compliance Approval of Terminal Equipment](image)

Cf. Form No. 7 of ordinance concerning technical conditions compliance approval, etc.
**Overview of Mutual Recognition Agreement (MRA) with Foreign Countries**

**Mutual Recognition Agreement**

- MRA is a system where the results of conformity assessments with the technical conditions of terminal equipment are mutually accepted between Japan and foreign countries.

- As for terminal equipment, Japan has concluded, Japan-EC MRA (Enacted Jan, 2002), Japan-Singapore MRA (Enacted Nov, 2002), and Japan-US MRA (Enacted Jan, 2008).

---

**Before Implementation of MRA**

- **[Japan]**
  - Manufacturers
  - Apply directly in a foreign country to export equipment designed for the foreign country (time and cost are required).
  - 1. Application
  - Market in Foreign Countries

- **[Foreign Country]**
  - CAB
  - 2. Conformity Assessment

**After Implementation of MRA**

- **[Japan]**
  - Manufacturers
  - 1. Application
  - Market in Foreign Countries

- **[Foreign Country]**
  - CAB
  - 2. Conformity Assessment
    - Assess overseas standards in Japan
  - 3. Export

- **[Japan]**
  - 1. Application
  - Market in Foreign Countries

- **[Foreign Country]**
  - Application for a foreign country can be performed in Japan
  - Shorter time period and reduced costs
  - 3. Export

---

**Overview of Mutual Recognition Agreement (MRA) with Foreign Countries**
After the analysis of the cost required for MRA implementation and its benefits brought by MRA, a possibility of MRA implementation with a country from which the Japanese industry and consumers benefit is studied.

- Japanese CABs accept test results from foreign countries where no MRA is concluded.
- MRA is under implementation or consideration with countries that can implement a mutual recognition of conformity assessment results.
- MRAs with the Europe, Singapore, and U.S.A. have already been under implementation.
2. Outline of Regulations Related to Certification System
Structure of Regulations Related to Terminal Equipment

- **Law**
  - Telecommunications Business Act
    - Cabinet Order for Enforcement of the Telecommunications Business Act
    - Ordinance for Enforcement of Telecommunications Business Act
    - Ordinance Concerning Terminal Facilities, Etc.
    - Ordinance Concerning Technical Conditions Compliance Approval, etc. of Terminal Equipment

- **Technical conditions**
  - ITU
  - ISO
  - etc.

- **Industry standards (voluntary standards)**

- **Certification procedure**

- **Other technical regulations specified other than ministry ordinances, etc.**

- **Agreements, International Standards etc.**

- **Japanese Acts and Ordinances (Enforced Regulations)**

- **Voluntary Standards**
Outline of Telecommunications Business Act

- **Purpose:** to ensure sound development of telecommunications and convenience for citizens and to promote the public welfare.
- **Enacted 1984, Composed of 193 Articles in Chapters 1-6**
- **Certification System is stipulated in the following subsections:**
  - Subsection 2, Section 4 of Chapter 2 “Connection of Terminal Equipment” (Articles 52 to 73)
  - Subsections 2 and 3, Section 5 of Chapter 2 “Registered Approval Body” and “Recognized Approval Body” (Articles 86 to 105)

**Sub-ordinances of Telecommunications Business Act**

- **Ordinance Concerning Terminal Facilities, etc.** (Stipulates the technical conditions of terminal equipments)
- **Ordinance Concerning Technical Conditions Compliance Approval for Terminal Equipment** (Stipulates the certification procedure of terminal equipment)

Telecommunications Business Act

Chap 1. General Provisions (Articles 1 to 5)

Chap 2. Telecommunications Business (Articles 6 to 116)

Section 4. Telecommunications Facilities (Articles 41 to 73)

Sub-sec 2 Connection, Etc. of Terminal Facilities (Articles 52)
  - (Articles 53 to 73)

Section 5. Designated Examination Body, Etc. (Articles 74 to 105)

Sub-sec 2 Registered Approval Body (Articles 86 to 103)

Sub-sec 3 Recognized Approval Body (Articles 104 and 105)

Chap 3. Use of Land, Etc. (Articles 117 to 143)

Chap 4. Telecommunications Dispute Settlement Commission (Articles 144 to 162)

Chap 5. Miscellaneous Provisions (Articles 163 to 176)

Chap 6. Penal Provisions (Articles 177 to 193)
To use terminal equipment in Japan, it is required to conform to technical conditions stipulated in the Telecommunications Business Act. Therefore, to obtain its certification, it is required to conform to the technical conditions as well. Detail of standards are stipulated in the following ordinances:

**Ordinance Concerning Terminal Facilities, etc.**

This ordinance stipulates technical conditions in addition to sub-section 2, Chapter 2 of the Telecommunications Business Act.

Contents stipulated:
1. General provisions  
2. Demarcation of responsibility  
3. Safety, etc.
4. Terminal equipment connected to telephone facility
5. Terminal equipment connected to radio paging facility
6. Terminal equipment connected to Integrated Services Digital Network (ISDN) facility
7. Terminal equipment connected to leased line facility or digital data transmission facility, etc.

**Certification Procedure**

To obtain the certification, it is necessary to follow a procedure according to the ordinance. The certification procedure of Japanese terminal equipment is stipulated in the following ordinance:

**Ordinance concerning Technical Conditions Compliance Approval of Terminal Equipment**

This ordinance stipulates the certification procedure of technical conditions compliance as the detailed regulations of Sub-Section 2 of Section 4 and Sub-Section 2 of Section 5, Chapter 2 of Telecommunications Business Act.

Main Contents:  
1. General provision  
2. Terminal equipment subject to technical conditions compliance approval  
3. Technical conditions compliance approval and design certification conducted by registered approval body  
   (Items to be examined, Form of label, Items to be filled out in the various notifications)
3. Explanations of Main Articles Related to After-the-fact Regulations
The following provisions are specified in the articles related to the standards certification system in Sub-section 2, Section 4, Chapter 2 in the Telecommunications Business Act.

<table>
<thead>
<tr>
<th>Articles in Telecommunications Business Act</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art.53 and Art.91</td>
<td>Label responsibility when technical conditions compliance approval is conducted. Prohibition of misleading labels, etc.</td>
</tr>
<tr>
<td>Art.54, Art.166, Art.167</td>
<td>Authority of MIC to certified vendors (collection of reports and on-site inspection, etc.)</td>
</tr>
<tr>
<td>Art.56 to Art.61</td>
<td>Obligations of certified vendors in design certification, etc. (obligations of compliance with designs and of saving examination records, etc.)</td>
</tr>
<tr>
<td>Art.62</td>
<td>Application to foreign vendors</td>
</tr>
<tr>
<td>Art.63 to Art.68</td>
<td>Self confirmation system of technical conditions compliance</td>
</tr>
<tr>
<td>Art.86 to Art.90</td>
<td>Registration standards of a registered approval body, etc.</td>
</tr>
<tr>
<td>Art.92 to Art.96</td>
<td>Obligation of a registered approval body</td>
</tr>
<tr>
<td>Art.97 to Art.103</td>
<td>Authority of MIC regarding registered approval body, etc. (Order to improve business and on-site inspection, etc.)</td>
</tr>
<tr>
<td>Art.104 and Art.105</td>
<td>Recognized approval body</td>
</tr>
</tbody>
</table>
The following articles from the Telecommunications Business Act are applied respectively to the registered approval body registered based on the Telecommunications Business Act.

<table>
<thead>
<tr>
<th>Articles of Telecommunications Business Act</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art.53 Para.1 and Art.92</td>
<td>Examination of technical conditions compliance approval report of certified devices to MIC</td>
</tr>
<tr>
<td>Art.53 Para.2 and Para.3</td>
<td>Obligation of certification label and prohibition of misleading labels</td>
</tr>
<tr>
<td>Art.86</td>
<td>Business category that an approval body can register</td>
</tr>
<tr>
<td></td>
<td>Items to be filled out in applications</td>
</tr>
<tr>
<td>Art.87</td>
<td>Registration criteria in MIC</td>
</tr>
<tr>
<td></td>
<td>Disqualification criteria</td>
</tr>
<tr>
<td>Art.88</td>
<td>Renewal of registration (registration period: 5 years)</td>
</tr>
<tr>
<td>Art.90</td>
<td>Public notice of a registered body</td>
</tr>
<tr>
<td></td>
<td>Notification in the case where a name etc. is changed.</td>
</tr>
<tr>
<td>Art.91</td>
<td>Obligation to certify without any delays</td>
</tr>
<tr>
<td></td>
<td>Criteria of measuring instruments and approval examiners</td>
</tr>
<tr>
<td>Art.93</td>
<td>Notification of appointment and dismissal of officers</td>
</tr>
<tr>
<td>Art.94</td>
<td>Establishment of business activities rules</td>
</tr>
<tr>
<td>Art.95</td>
<td>Keeping the financial statements and record book</td>
</tr>
<tr>
<td>Art.97, Art.98, Art.166 Para.5</td>
<td>MIC order to an approval body and on-site inspection</td>
</tr>
<tr>
<td>Art.99</td>
<td>Notification of suspension and discontinuation of service</td>
</tr>
<tr>
<td>Art.100</td>
<td>Criteria of a registration revocation by MIC</td>
</tr>
<tr>
<td>Art.102</td>
<td>Certification by MIC</td>
</tr>
<tr>
<td>Art.103</td>
<td>Application of other provisions</td>
</tr>
</tbody>
</table>
The following articles from the Telecommunications Business Act are applied respectively to the vendor certified by a Japanese approval body or the certification body to serve Japan while residing in a foreign country according to MRA.

<table>
<thead>
<tr>
<th>Articles of Telecommunications Business Act</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art.54</td>
<td>Order to prevent disturbance</td>
</tr>
<tr>
<td>Art.55 Para.1</td>
<td>Case where terminal equipment is deemed to have no label affixed</td>
</tr>
<tr>
<td>Art.57 Para.1</td>
<td>Obligation of compliance with design</td>
</tr>
<tr>
<td>Art.57 Para.2</td>
<td>Obligation of saving examination records</td>
</tr>
<tr>
<td>Art.58</td>
<td>Provision of labels</td>
</tr>
<tr>
<td>Art.59</td>
<td>Order to take a measure</td>
</tr>
<tr>
<td>Art.60 Para.1</td>
<td>Prohibition of affixing labels</td>
</tr>
<tr>
<td>Art.61</td>
<td>Application (Order to prevent disturbance, Case where terminal equipment is deemed to have no label affixed)</td>
</tr>
<tr>
<td>Art.62 Para.2 and 3</td>
<td>Foreign vendors (Submission of terminal equipment, etc. Order to prevent disturbance, Order to take a measure, Prohibition of affixing labels)</td>
</tr>
<tr>
<td>Art.167 Para.6</td>
<td>Collection of reports and on-site inspection</td>
</tr>
<tr>
<td>Art.166 Para.2 and 3</td>
<td>Submission of terminal equipment, etc.</td>
</tr>
</tbody>
</table>
Obligation of Complying with Design

Obligation of Complying with Design

[Paragraph 1, Article 57 of the Telecommunications Business Act]

“Certified Vendor” which is certified by an approval body has an obligation to have the terminal equipment compliant with its design when the vendor handles the terminal equipment according to the design specifications concerning the certification.

Obligation of Saving Examination Records

Obligation of Saving Examination Records

[Paragraph 2, Article 57 of the Telecommunications Business Act]

- Certified Vendor shall inspect the terminal equipment regarding the certification and create and save the examination records according to the certified “examination method” (method concerning quality control) to implement the obligation as described above.

- The following items must be recorded and saved for 10 years from the examination date:
  1. Certification number of the design concerning the examination
  2. Date and location of the examination
  3. Name of the person who is in charge of the examination
  4. Examination method, and
  5. Examination result

(As specified in the Article 21 of the Ordinance concerning Technical Conditions Compliance Approval for Terminal Equipment)
- Label [Article 58 of the Telecommunications Business Act]

- The certified vendor may affix the label indicating the compliance on the terminal equipment only when the aforementioned obligations of complying with design and of storing examination records are carried out.

- The label format is stipulated in the following form:
  Form No. 7 of Ordinance Concerning Technical Conditions Compliance Approval, etc. of Terminal Equipment

  →See Page 6 of this document.

- The label must be affixed on a recognizable place.
- The terminal equipment with the label affixed according to the procedure shall get the aforementioned legal benefit.

* Handling of a label when any change is made on the terminal equipment *

- In principle, a certified vendor must obtain a new certification by a certification body when a part of or the whole design specification is changed on the terminal equipment.

- When a new certification is obtained, Another Number shall be provided for the certification.
- **On-site Inspection on Certified Vendors**
  [Paragraphs 2 and 3, Article 166 of the Telecommunications Business Act]
  - When it is deemed necessary for the enforcement of this Act, MIC may order a certified vendor to report on the terminal equipment concerning the certification or may order MIC staff members to conduct an on-site inspection at its office of the certified vendor to inspect the corresponding terminal equipment or any other objects.
  - When the vendor refuses a report or falsifies a report, a maximum penalty of 300,000 yen may be applied.

- **Order to Prevent Disturbance**
  [Article 54 of the Telecommunications Business Act]
  - MIC may order a certified vendor to take any necessary measures for preventing any expansion of disturbance caused by the equipment when the Minister particularly deems a necessity to prevent the expansion in the case where the terminal equipment with the label concerning certification is in fact not complying with the technical conditions and that the usage of the equipment may cause disturbance with other users’ communications in the telecommunications circuit equipments.
  - When the order is violated, a maximum penalty of 1 year in jail or a fine of up to 1 million yen may be applied. Also, a maximum corporate fine of 100 million yen may be applied concurrently.
- Submission of Terminal Equipment
  [Article 167 of the Telecommunications Business Act]

  - MIC may order a certified vendor to submit the corresponding terminal or object within a specified time limit when an on-site inspection of the equipment by the staff members is deemed extremely difficult in its residing site or when an object is particularly required in the examination of the corresponding equipment.

  - When this order is violated, a maximum penalty of 300,000 yen may be applied.

- Order to Take a Measure [Article 59 of the Telecommunications Business Act]

  - MIC may order a certified vendor to take the necessary measures for improving an examination method regarding certification when the Minister deems that the certified vendor has violated the obligation of complying with design.

  - When this order is violated, any labeling service may be prohibited.
Provisions Related to Label

■ Measures to prohibit affixing labels  
【 Article 60, Paragraph 1 of the Telecommunications Business Act 】

MIC may prohibit the certified vendors from affixing their certification label on the equipments which are based on the specifications for up to two years if any of the following cases apply.

(1) When the equipment which is based on the specifications do not conform to the technical conditions provided in the Telecommunications Business Act and a ban needs to be implemented to prevent disturbance with communications by other users of the telecommunications circuit facility (except cases applying to 6).

(2) When the certified vendors violate their duty to inspect and record.

(3) When the certified vendors breach administrative orders.

(4) When the certified vendors are authorized by illegal measures.

(5) When the registered approval bodies certify in violation of their duties.

(6) When the technical conditions are changed and the specifications certified before the change no longer conform to the new technical conditions.

MIC will publish a notice of any prohibition of affixing labels.

Any breach of the regulations may be subject to up to a year of imprisonment or up to 1 million yen fine. Legal entities may be subject to up to a 100 million yen fine.

■ Measures that terminal equipment is deemed to have no label affixed  
【 Article 55, Paragraph 1 of the Telecommunications Business Act 】

If the equipment with the certification mark does not conform to the technical conditions and MIC determines that a ban is required to prevent the disturbance on the communications by other users of the telecommunications circuit facility, the equipment is regarded as having no certification label.

MIC publishes a notice declaring it as being without label.
4. After-the-fact Regulations and Market Surveillance
Implementation of after-the-fact regulations and inspection in the market

- MIC judges whether the certification is implemented properly by conducting an on-the-spot inspection of the registered approval body, etc.
- There are after-the-fact regulations including orders for improvement, orders to prohibit affixing labels and orders to recall the products.
- MIC monitors the certification status via inspections in the market and other measures.

### Inspection in the Market

#### Device Inspection
- MIC purchases the product without advance notice.
- MIC tests whether it conforms to the technical conditions or not.
- If it was found that the equipment does not comply with the technical conditions, MIC directs the supplier (vendor or dealer) to take corrective measures.

#### Document Inspection (From 2011)
- MIC requests to submit documents.
- Confirm that documents are prepared and kept in compliance with the regulation.
- Render administrative guidance etc. when breach is found.

### The result of the inspections in the market (regarding terminal equipments)

We have conducted the inspections since FY2003. Some products have been found defects in emergency call and compliance of documents is checked in progress in FY 2011.
5. Technical Conditions for Terminal Equipment
In Japan, a mobile telephone using any of the following systems must comply with not only the Radio Act but also with the technical conditions in the Telecommunications Business Act.

The technical regulations in the Telecommunications Business Act target the terminal equipment connecting to the telecommunications circuit facility, aiming to prevent any damage to the facility. The technical conditions must be conformed even if a radio link is used to connect to the telecommunications circuit facility.

<table>
<thead>
<tr>
<th>Types of Terminal equipments</th>
<th>Symbols</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal equipment connected to analogue telephone facility and mobile telephone facility</td>
<td>A</td>
</tr>
<tr>
<td>Terminal equipment connected to Internet Protocol Telephone Facility</td>
<td>E</td>
</tr>
<tr>
<td>Terminal equipment connected to Radio Paging Facility</td>
<td>B</td>
</tr>
<tr>
<td>Terminal equipment connected to ISDN facility</td>
<td>C</td>
</tr>
<tr>
<td>Terminal equipment connected to leased line facility or digital data transmission facility</td>
<td>D</td>
</tr>
</tbody>
</table>

- TDMA
- CDMA
- W-CDMA
- CDMA2000
- W-CDMA (HSDPA)
- CDMA2000 (1xEV-DO)
- LTE
- WiFi
- WiMAX
- XGP

The following page shows the technical regulations which should be conformed for the terminal equipments connected to other telecommunication circuit facility.
"Terminal equipment using a radio wave inside the terminal facility" is a target for certification. Terminals applicable for certification are cordless phones, Wi-Fi, Bluetooth etc. However, wireless mouse and keyboards are not targets for certification. Wireless headsets are a target for certification.

Article 9  Terminal equipment that uses radio waves between sections included in the terminal facility must comply with the requirements indicated below.

1. An Identification Code (a code to identify radio facility used as terminal facility and referenced during setting of the communication channel) that conforms to requirements published separately by MIC must be provided.
2. This equipment must determine whether the frequency for utilizing electric waves is open or not in accordance with the separately published notice from MIC, and must establish a communication channel only when that frequency is open. This stipulation, does not apply to those cases specifically noted by MIC.
3. The radio facility must be stored in single cabinet that can not be easily opened. This stipulation, however, does not apply to cases specifically noted otherwise by MIC.

• In accordance with reports from Information and Communications Council “Articles regarding technical conditions as to IP telephone terminals and telecommunications troubles” (July 28, 2009) and “What comprehensive legal system of communications and broadcast should be” (August 26, 2009), revision is conducted which makes it possible to record a Label which means it conforms to the technical conditions (hereinafter called conformity mark), which was attached to an easily recognizable section of terminal equipment, onto terminal equipment with a screen image in an electronic way and to show it on its image screen (Electronic label).

Actual Status of Conformity Mark

- As for a mobile phone terminal, label showing it is adapted to related technology standards (conformity mark, Bluetooth logo etc.) is attached in the storage space of a battery pack.

- The space to attach the conformity mark is running short as various terminal equipment including a mobile phone terminal is becoming rapidly downsizing multirole and combined.

Actual Status

Revised ministerial ordinance issued and enforced on April 28, 2010

Introduction of Electronic label

- Short of space to attach conformity mark is solved by the introduction of electronic label.

- It is easier to confirm than the place where the conformity mark is now attached.
"Example of Electronic Label which conforms to the technical conditions">

(1) Operation Example

(2) Display Example
6. System Update
0AB~J IP telephone (hereafter called IP telephone) has developed into a major telephone terminal equal to analog and mobile phones.

Meanwhile, at present the IP telephone terminal is defined as "data communication" not as "telephone terminal" and necessary functions as a telephone are not secured in the system.

From the viewpoint of network-protection etc., required system improvement will be carried out so that the IP telephone will have the minimum necessary functions as a telephone and can deal with the problems particular to it.

Structure of Ordinance Concerning Terminal Facilities, etc.

Chapter 1 General Rules (Article 1 and 2)
Chapter 2 Demarcation Point of Responsibility (Article 3)
Chapter 3 Safety (Article 4 to 9)
Chapter 4 Terminal Equipment connected to Telephone facility
Section 1 Analog Telephone Terminal (Article 10 to 16)
Section 2 Mobile Telephone Terminal (Article 17 to 32)
Section 3 Internet Protocol Telephone Terminal (Article 32-2 to 32-9)
Chapter 5 Terminal Equipment connected to Radio Paging Facility (Article 33, 34)
Chapter 6 Terminal Equipment connected to ISDN Facility (Article 34-2 to 34-7)
Chapter 7 Terminal Equipment connected to Leased Line Facility or Digital Data Communication Facility (Article 34-8 and 34-9)
Chapter 8 Special Terminal Equipment (Article 35)
Chapter 9 Independent Terminal Facility (Articles 36)

Defining IP telephone terminal as telephone equipment and improving technical conditions

Adding conditions to assure emergency call

It was found that some telephone terminals cannot make emergency calls in the stream of diversification and internationalization of terminal.

Example: Some mobile phones made in a foreign country was set "911=emergency number" wrongly, sold as it was and couldn't make emergency call and so on.
Details of Amendment of Technical Conditions on Terminal Equipment

<table>
<thead>
<tr>
<th>Ordinance Concerning Terminal Facilities, etc.</th>
<th>Analog Telephone</th>
<th>Mobile phone</th>
<th>IP Telephone</th>
<th>Radio Pager</th>
<th>ISDN</th>
<th>Data Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamental function</td>
<td>Article 10</td>
<td>Article 10</td>
<td>Article 32-2</td>
<td>—</td>
<td>Article 34-2</td>
<td>—</td>
</tr>
<tr>
<td>Transmission function</td>
<td>Article 11</td>
<td>Article 18</td>
<td>Article 32-3</td>
<td>—</td>
<td>Article 34-3</td>
<td>—</td>
</tr>
<tr>
<td>Selection signal conditions</td>
<td>Article 12</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Transmission timing</td>
<td>—</td>
<td>Article 19</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Random-access control</td>
<td>—</td>
<td>Article 20</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Time alignment control</td>
<td>—</td>
<td>Article 21</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Location registration control</td>
<td>—</td>
<td>Article 22</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Function to follow channel switching direction</td>
<td>—</td>
<td>Article 23</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Reception level informing function</td>
<td>—</td>
<td>Article 24</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Function to follow transmission shutoff direction</td>
<td>—</td>
<td>Article 25</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Automatic transmission shutoff function when reception level deteriorates etc.</td>
<td>—</td>
<td>Article 26</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Automatic transmission shutoff function in the time of breakdown</td>
<td>—</td>
<td>Article 27</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Identification information registration</td>
<td>—</td>
<td>—</td>
<td>Article 32-4</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Congestion informing function</td>
<td>—</td>
<td>—</td>
<td>Article 32-5</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Securement of important communication</td>
<td>—</td>
<td>Article 28</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Emergency call function</td>
<td>Article 12-2</td>
<td>Article 28-2</td>
<td>Article 32-6</td>
<td>—</td>
<td>Article 34-4</td>
<td>—</td>
</tr>
<tr>
<td>Change prevention of terminal specific information</td>
<td>—</td>
<td>Article 29</td>
<td>—</td>
<td>Article 33</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Electrical conditions etc.</td>
<td>Article 13</td>
<td>—</td>
<td>Article 32-7</td>
<td>—</td>
<td>Article 34-45</td>
<td>Article 34-78</td>
</tr>
<tr>
<td>Delivery power etc.</td>
<td>Article 14</td>
<td>Article 30</td>
<td>Article 32-8</td>
<td>—</td>
<td>Article 34-56</td>
<td>—</td>
</tr>
<tr>
<td>Crosstalk mitigation amount</td>
<td>Article 15</td>
<td>Article 31</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Article 34-89</td>
</tr>
<tr>
<td>Special ~terminal</td>
<td>Article 16</td>
<td>Article 32</td>
<td>Article 32-9</td>
<td>Article 34</td>
<td>Article 34-67</td>
<td>—</td>
</tr>
</tbody>
</table>

*Amendment will be made on the red parts

Technical conditions regarding emergency calls

Technical conditions as to IP telephone terminal
(1) **Basic functions (Article 32-2)** From the same viewpoint as other telephone terminals etc., requirements are set for basic functions including calling, answering, and the termination of call.

(2) **Calling function (Article 32-3)** Where a terminal is equipped with an automatic calling function, in order to restrict a prolonged line capture and multiple call attempts, the same conditions as analog telephone terminals and ISDN terminals are established.

(3) **Identification Information Registration (Article 32-4)** During the process of recovery from a major communication failure such as an electric power failure and network failure etc., network congestion and unavailability of telephone service is envisioned as networking equipment is unable to process the registration requests concurrently made by many terminals network. Therefore, requirements are set in order to inhibit this kind of network congestion.

(4) **Congestion notification function (Article 32-5)** When a network is congested and a user (caller) is unable to get through, the caller may attempt to place another call, thereby making the congestion worse. Therefore, the amended technical conditions will set conditions so that when a congestion signal is sent out from the network, the caller is explicitly notified to that effect.

(5) **Emergency call function (Article 32-6)** As for emergency calls, terminal equipments need to be equipped with functions necessary to respond to networking equipments. Therefore, terminals used for making calls are required to fulfill the necessary conditions for making emergency calls.

* Emergency call function is required for all the telephone terminals including IP telephone terminal.

(6) **Electrical conditions (Article 32-7)** In order to prevent damage to telecommunication network for telecommunications business, same as ISDN terminals, requirements including maximum signal output power etc. are set.

(7) **Signal output power (Article 32-8)** In a machine voice etc., it is possible to increase the signal output power in the part of communications. In order to avoid causing trouble to other users due to the increased signal output, same as the ISDN terminals, it is reasonable to keep the signal output power below a certain value.

(8) **Special IP telephone terminals (Article 32-9)** Same as analog telephone terminals and ISDN terminals etc., special exemptions are defined.
Symbol “E” is newly prescribed as an additional category of Technical Conditions Compliance for IP telephone terminal.

Ordinance Concerning Technical Conditions Compliance Approval for Terminal Equipment, Etc.

<table>
<thead>
<tr>
<th>Type of Terminal Equipment: Current</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal equipment connected to telephone facility</td>
<td>A</td>
</tr>
<tr>
<td>Terminal equipment connected to radio paging facility</td>
<td>B</td>
</tr>
<tr>
<td>Terminal equipment connected to ISDN facility</td>
<td>C</td>
</tr>
<tr>
<td>Terminal equipment connected to leased line facility or digital data communication facility</td>
<td>D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Terminal Equipment: After the revision</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal equipment connected to analog telephone facility or mobile telephone facility</td>
<td>A</td>
</tr>
<tr>
<td>Terminal equipment connected to IP telephone facility</td>
<td>E</td>
</tr>
<tr>
<td>Terminal equipment connected to radio paging facility</td>
<td>B</td>
</tr>
<tr>
<td>Terminal equipment connected to ISDN facility</td>
<td>C</td>
</tr>
<tr>
<td>Terminal equipment connected to leased line facility or digital data communication facility</td>
<td>D</td>
</tr>
</tbody>
</table>

例 T ACE 11-0001 101

Current

- D Router equipped with VoIP adapter function
- D VoIP adaptor
- D IP telephone terminal
- A Certified telephone terminal

After the amendment

- DE Router equipped with VoIP adapter function
- E VoIP adaptor
- DE IP telephone terminal
- A Certified telephone terminal
Date of Enforcement etc. of Technical Conditions & Certification


- Mobile telephone, ISDN, Analog telephone
  - Former conditions are applied for technical conditions for terminals that have already been certified.
  - Emergency call function not required
  - A & C certifications (former technical conditions)
  - Notice of testing method etc.

- D certification
  - Former conditions are applied for technical conditions for terminals that have already been certified.
  - Standard Applied to Terminal Equipment Connected to IP Telephone Facility
  - Emergency call function required
  - Revised Ordinance Concerning Terminal facilities etc. New Article 32-4&5 (Registration of identification information, congestion notification)

Interim Measure (1): Apr. 1, 2012

- (Moratorium Period)
  - Either new or old conditions are applied for certification etc. during the moratorium period
  - A & C certifications (new technical conditions)

Interim Measure (2): Apr. 1, 2013

- (Moratorium Period)
  - Only new conditions are applied after the expiration of the moratorium period

- E certification
  - (Required)
  - No technical conditions necessarily need to be applied during the moratorium period
Emergency Call Function

- In the revised Ordinance Concerning Terminal Facilities, etc. (Promulgated on October 25, 2010), the emergency call function is prescribed as a technical requirement for analog telephone terminals, mobile telephone terminals, IP telephone terminals and ISDN terminals that are used for making calls. That was enforced on April 1, 2011.

- Not applicable to incoming-only terminals and some satellite-based mobile phones.

- In dealing with some mobile terminal equipments including terminals that adopt W-CDMA system, special attention on “unlocking of SIM from 2011 and global distribution of terminals” needs to be paid in addition to its complicated mechanism that can only be realized with a combination of a terminal and USIM.
  - Upon applying for Technical Conditions Compliance Approval, tests are required for all the $E_{ECC}$ (details will be disclosed by each carrier) corresponding to a carrier for which the terminal is to be used.
Examples of Specifications for Emergency Calls in W-CDMA System

Example 1)
- Emergency Setup Service Category
- 110/119/118 and SCV
- Emergency call can be made.

Example 2)
- Emergency Setup Service Category
- 110/119/118 and SCV
- Dummy Number 000000
- Emergency call can be made.

Example 3)
- Normal Setup
- Dummy Number 000000
- Emergency call can be made.
Recently Added or Revised Types of Terminal Equipment

- **Leased Line Terminal Equipment: LTE (From July 2010)**
  
  Required Functions and conditions
  - Calling & answering functions, Transmission timing, Random access control, Time alignment control, Location registration control, Function for receiving level reports etc.

- **DECT, sPHS [Digital codeless telephone standard] (From October 2010)**
  
  Required Functions and conditions
  - Identification code, Carrier sense etc.

- **Leased Line Terminal Equipment: 1000BASE-T (From April 2011)**
  
  Required Functions and conditions
  - Transmission voltage etc.

- **Leased Line Terminal Equipment: XGP (From July 2011)**
  
  Revised Functions and conditions
  - Transmission timing, Random access control, Function for receiving level reports

- **920MHz-Band Electronic Tag System (From December 2011)**
  
  Required Functions and conditions
  - Identification code, Carrier sense etc.
Thank you very much for your kind attention

MIC Website
http://www.soumu.go.jp/

Telecommunications Bureau of MIC Website
http://www.tele.soumu.go.jp/index.htm

* MIC: Ministry of Internal Affairs and Communications or Minister of Internal Affairs and Communications