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## COMMUNICATIONS NEWS

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# Interim Report on Results of "Verification Experiments on Copyright Clearance System"

-- Toward facilitated rights management for broadband distribution of broadcast content--

MPHPT has been conducting a three-year plan since FY2002 for the "development and verification on copyright clearance systems (verification experiments on copyright clearance systems)" in cooperation with broadcasters, copyright-holder organizations and so on.

By creating an environment for the formation of the content distribution market, this plan aims to promote the production and distribution of content over the broadband networks as well as to facilitate the complex and varied copyright clearance in video content distribution including broadcast programming. MPHPT has recently compiled the results of verification experiments carried out in FY2003.

## I. Outline of verification experiments

### 1. Background and purpose

- Along with development of infrastructure construction, including widespread deployment of fiber-optic networks and commencement of digital broadcasting, promotion of effective use of such infrastructures has become issues upon implementing the ICT strategies of the government. In addition, the promotion of content distribution including expansion of broadband business is recognized as one of priority policy measures from the viewpoint of the government's intellectual property strategy.
- In response to such circumstances, there are expectations for smooth distribution of video content including broadcast programming via broadband networks. To this end, facili-

tated rights management <sup>Note 1</sup> regarding copyrights, etc. has been highlighted as one of the issues involving distribution.

- Since FY2002, MPHPT has been conducting the "Verification Experiments on a Copyright Clearance System" over a three-year period in order to develop i) a general-purpose metadata structure <sup>Note 2</sup> for facilitating rights management between content holders (broadcasters, etc.) and copyright holders, and ii) a digital rights management system utilizing the general-purpose metadata structure.

Note 1: Since there are many people involved in production of video content (e.g., scriptwriters, lyricists, composers, performers <musicians, singers, actors>, producers of materials, etc.), it is required to facilitate rights management for the secondary use (distribution on the Internet, etc.). Currently, in many cases, negotiations and contracts are being done one by one via telephones, facsimiles, etc.

Note 2: Metadata: Attribute information concerning content. In the case of broadcast programming, metadata include information on each program, such as title, content, scene composition, broadcasting time, etc., and information on each right, such as names of copyright holders, contact points on application for use, and usage conditions, etc.

### 2. Major themes

- To deliberate upon and develop the "general-purpose metadata structure" for facilitated exchange of metadata among stakeholders related to rights management
- To verify effectiveness of an online rights management system utilizing the general-purpose metadata structure

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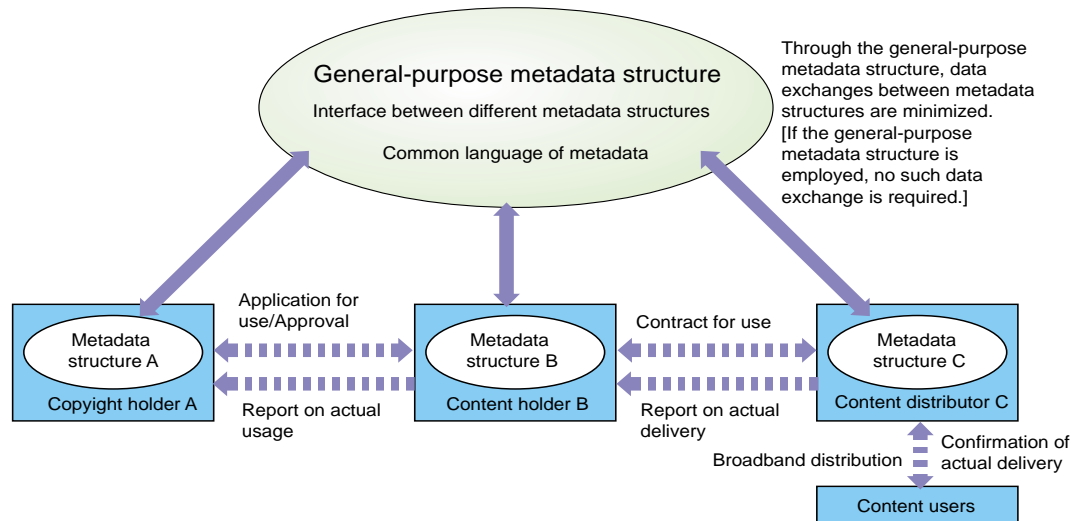
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ture for enhancing the accuracy and speed involving rights management as regards the secondary use of content

**3. Promotion scheme**

- Upon implementation of verification experiments, in collaboration with the "Study Group on Copyright Clearance for Network Distribution of Broadcast Content" (Chair: Mr. SHIRAI Futoshi, President of the Foundation for MultiMedia

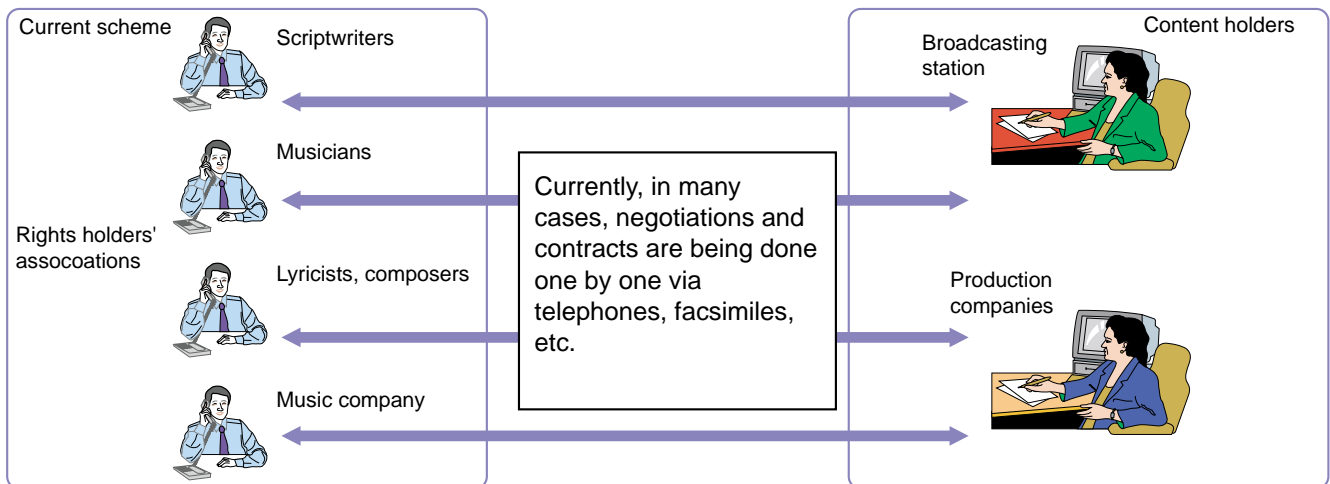
Fig. 1. Use of the general-purpose metadata structure (Image)



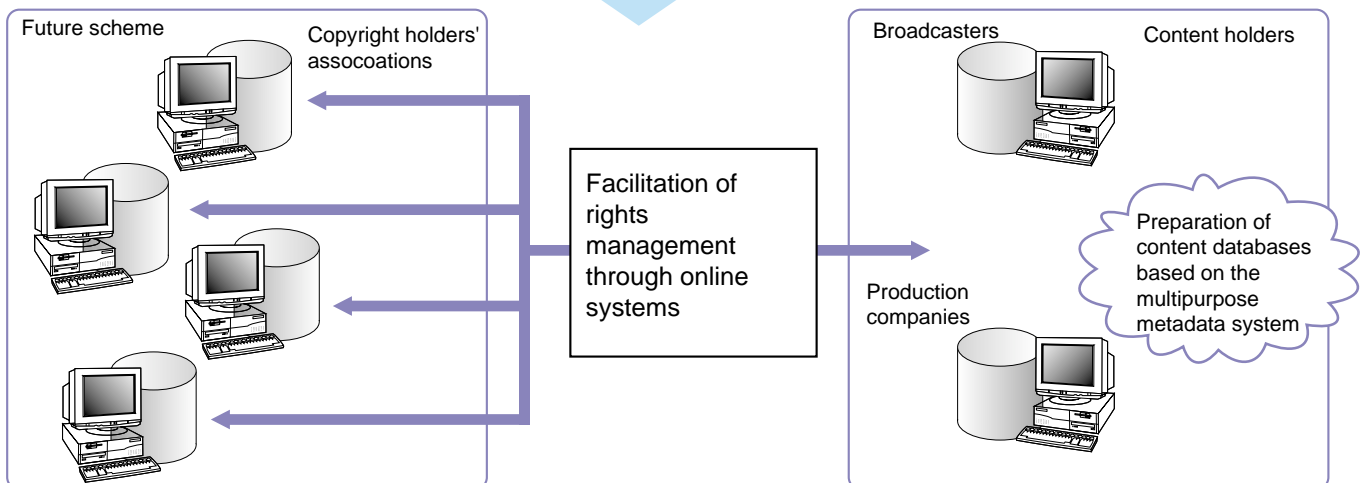
Through the general-purpose metadata structure, data exchanges between metadata structures are minimized. [If the general-purpose metadata structure is employed, no such data exchange is required.]

**Significance of rights management system**

Since there are many people involved in production of video content (e.g., scriptwriters, lyricists, composers, performers, etc.), it is required to facilitate rights management for the secondary use (distribution on the Internet, etc.).



Through the Verification Experiments on Copyright Clearance System, if the general-purpose metadata structure would be prepared, online databases on rights information would be created.. ..



Communications), set up in February 2002 (hereinafter referred to as the "Study Group on Copyright Clearance"), MPHPT has been promoting the verification experiments in cooperation with broadcasters, copyright-holder organizations, programming production companies and so on.

## II. Outputs

1. Deliberations upon and development of the metadata structure contributing to facilitation of rights management
- (1) Development of the general-purpose metadata structure
  - It is vital to mutually and efficiently exchange metadata among stakeholders involved in B2B content distribution/transactions, including copyright holder organizations, content holders and content distributors, for facilitating rights management. To this end, it is essential to construct a mechanism for ensuring compatibility of metadata used by each stakeholder.
  - MPHPT considered metadata item groups for common use among stakeholders as a mechanism for ensuring metadata compatibility, subsequently set forth the general-purpose metadata structure functioning as a "common language of metadata" in FY2002, and released the general-purpose metadata structure at a press conference held on May 20, 2003.
  - MPHPT refined the general-purpose metadata structure in FY2003 and reported the results to the Study Group on Copyright Clearance.
  - It can be said that the general-purpose metadata structure is a kind of a dictionary. Even between different metadata structures, when interfaces with this general-purpose metadata structure are established, efficient metadata exchanges would be enabled.
  - Major features of the metadata structure developed at this time are as follows:
    - This metadata structure includes

many metadata items meeting a variety of usage/transaction modes for use of broadcasting, the Internet, etc.

- Mutual exchanges with major existing metadata structures in the world, including P/Meta<sup>Note 3</sup> and TV-Anytime Forum<sup>Note 4</sup>, are taken into consideration.

Note 3: P/Meta: The Project Group of the European Broadcasting Union (EBU) for standardization of a metadata structure

Note 4: TV-Anytime Forum: An international private-sector standardization organization addressing standardization of metadata specifications for the purpose of realizing new multimedia services through the use of storage function, the interaction of communication and broadcasting

### (2) Development of profiles

- Since the general-purpose metadata structure is a kind of a dictionary of metadata items, it is necessary to select adequate items according to actual usages. "Profiles" are excerpts of items from the general-purpose metadata structure, necessary for actual usages, and make the metadata structure consisting of many items available for efficient use.
- In FY2003, with respect to applications/approvals for use between copyright-holders and content holders, and contracts for use between content holders and content distributors, "profiles" were developed.
- Upon development of the "profiles," practical profiles were developed by i) analyzing actual business practices and content information database items, etc. and ii) extracting requirements.

## 2. Verification of rights management systems utilizing metadata

### (1) Verification of the general-purpose metadata structure, etc.

- By simulating a flow of content distribution process including applications/approvals for use, contracts for use, reports on actual deliveries/utilizations, verifications of the general-purpose metadata structure and

metadata exchanges utilizing profiles were carried out on the experiment system.

### [Major points]

- Acquisition of information on copyright-holders by content holders (broadcasters)
  - Correctness and swiftness were verified through trials that upon generating metadata, content holders could obtain information on copyright-holders pertaining to content from copyright-holders' databases online.
- Confirmation of professional affiliation of copyright-holders and applications/approvals for use
  - Efficiency and effectiveness of rights management systems utilizing metadata were verified through trials on confirmation of professional affiliation of copyright-holders and applications/approvals for use.

## III. Deployment, etc. of results

- Based upon these results, at the Study Group on Rights Clearance held by the Foundation for MultiMedia Communications (FMMC), the metadata structure J/Meta2.0<sup>Note 5</sup> was developed.
- Henceforth, through promotion of utilization, etc. of the metadata structure among stakeholders, etc., it is expected that i) the efficiency of content metadata exchanges will be improved; and ii) the secondary use of broadcast programming, etc. and distribution of broadband content will be promoted.
- In FY2004, as the final fiscal year of the three-year experiments, i) experiments, etc. for further refining the metadata structure and profiles will be carried out, and ii) the outputs of the three-year experiments will be summarized.

Note 5: For details of J/Meta2.0, please refer to the website of the FMMC at:

<http://www.fmmc.or.jp>

## Outputs: (1) Deliberations upon and development of the metadata structure contributing to facilitation of rights management

- Examples of items for the general-purpose metadata structure "J/Meta2.0"

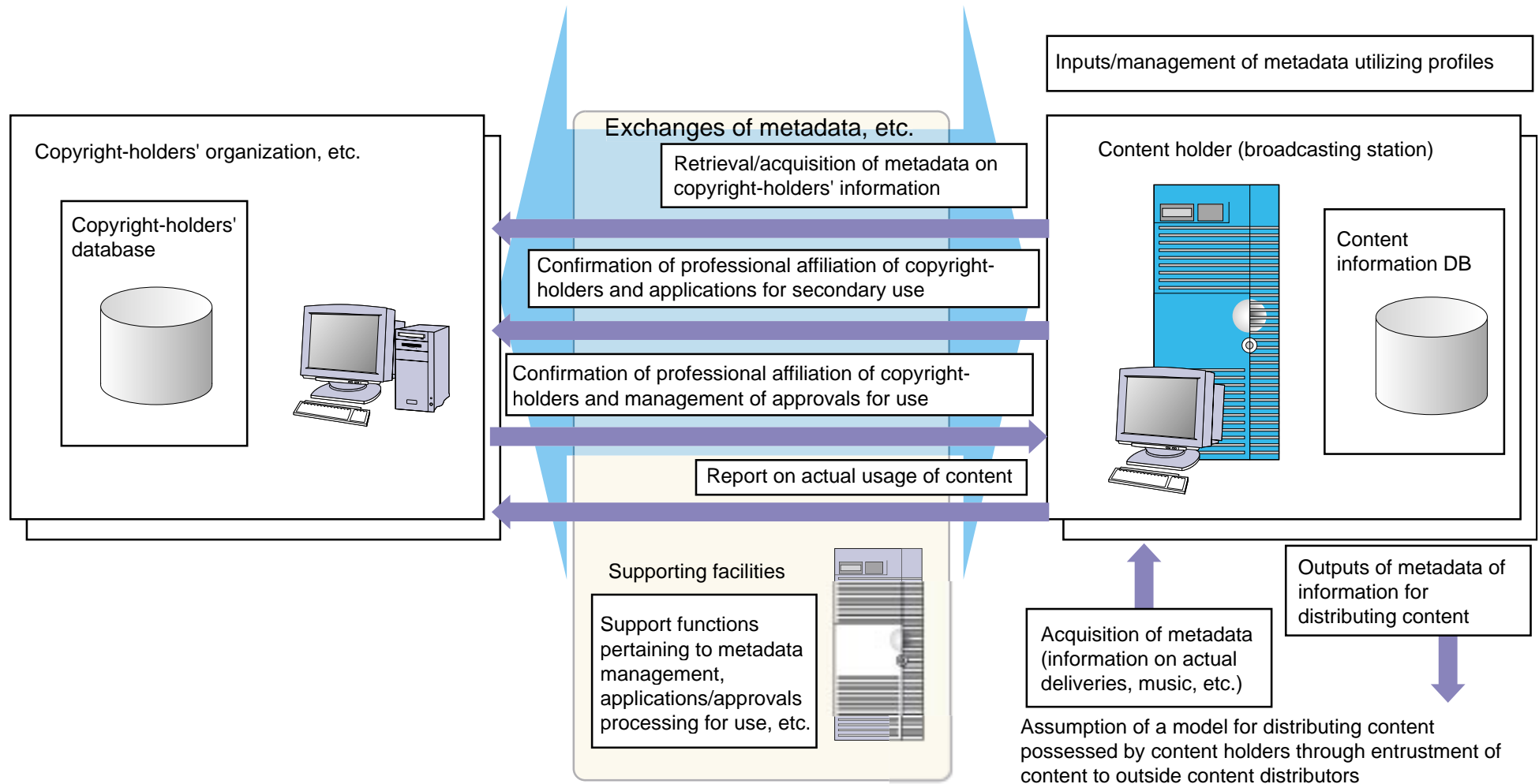
Major division	Minor division	Examples of items
• Metadata on content information (about 500 items)	• Index information for identifying content	• Content information on ID, title, casting, series number, etc.
• Metadata on content information (about 500 items)	• Detailed information on content	• Information on length (hours and minutes), story summaries, key words, locations
• Metadata on content information (about 500 items)	• Historical information on broadcasting	• Information on day and time aired for the first time, names of channels, broadcast flags, rates
• Metadata on content information (about 500 items)	• Genre information on content	• Genre codes (news, drama, etc.), classification of purposes (entertainment, education, etc.), target viewers (minors, general public, etc.)
• Metadata on content information (about 500 items)	• Information- on related content	• Names of related content, related ID codes (other versions, materials, etc.)
• Metadata on content information (about 500 items)	• Information on content exchange format	• Sampling rates of moving pictures, sound bit rates, resolutions

Major division	Minor division	Examples of items
• Metadata on rights information (about 1,300 items)	• Information on copyright-holders of total content	• Names of copyright-holders, codes on types of copyright-holders (broadcasting stations, programming production companies, etc.), contact points
• Metadata on rights information (about 1,300 items)	• Information on entrusted agencies/organizations of copyrights for total content	• Names of agents for copyrights, codes on types of organizations (authorized organizations, associations, etc.), contact points
• Metadata on rights information (about 1,300 items)	• Basic information on approval for use of total content (terms and conditions for common approval for use of said content)	• Types of approved rights (rights to broadcast, rights to allow transmission, etc.), information on where to apply for approval, basic terms and conditions for approval (valid terms, addresses to deliver, etc.), contact points
• Metadata on rights information (about 1,300 items)	• Information on separate contracts pertaining to production/use of content (on title holders, content distributors, etc.)	• Contract numbers, information on contractors, terms and conditions (contract amounts of money, days of reports on actual usage, etc.)
• Metadata on rights information (about 1,300 items)	• Information on actual use of music used in content	• Titles of music, numbers of CD, hours of music used

## Outputs: (2) Verification of rights management system utilizing metadata (2)

### [Outline of rights management system]

- A verification experiment system was constructed which i) can interact a copyright-holder's information database as possessed by an assumptive copyright-holder and a content information database as possessed by an assumptive content holder (broadcaster), and can process services related to rights management through functions for metadata input and management and exchange.



# Development of Technical Requirements Regarding Provision of Location Information on Callers Sending Emergency Messages from Cellular Phones

-- Partial Report from Telecommunications Council

On June 30, 2004, MPHPT received a partial report from the Telecommunications Council (Chair: Mr. AKIYAMA Yoshihisa, Chairman, Kansai Electric Power Co., Inc.) concerning "technical requirements regarding provision of location information on callers sending emergency messages from cellular phones." This was a partial report in response to Inquiry No. 2015 submitted on November 27, 2003, concerning "measures for advancing emergency message functions in the telecommunications business."

In recent years, the penetration of cellular phones has led to a rapid increase

in the percentage of emergency calls originating from cellular phones. In particular, such calls comprise over half the emergency calls to the police emergency number, 110. Since pinpointing the location of callers would be vital to ensuring rapid and accurate response by emergency services, realization of functions for providing location information on callers sending emergency messages from cellular phones is necessary at an early stage.

In response to such a situation, a July 2003 report from the "Study Group on Ensuring Important Telecommunications in the Telecommunications Busi-

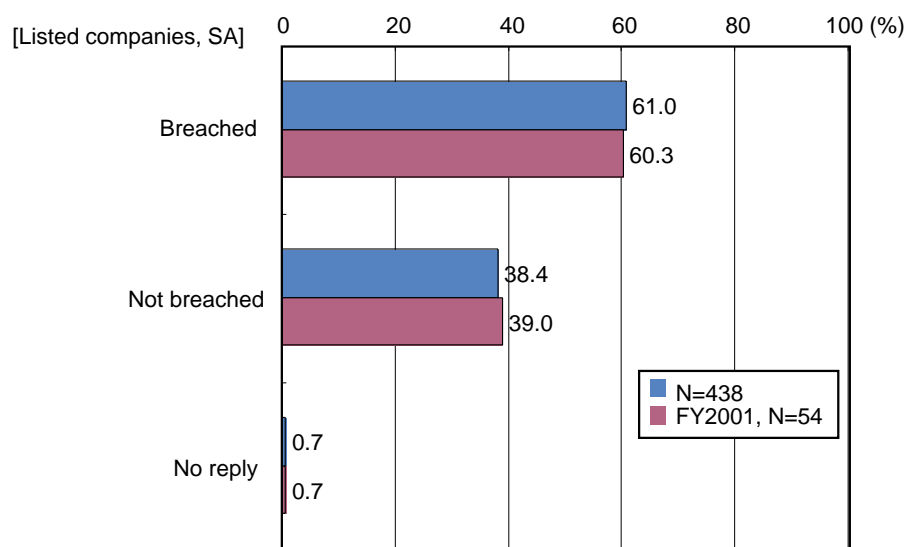
ness" recommended that swift measures be taken toward a smooth introduction of the functions for reporting location information. Under the "e-Japan Priority Policy Program 2003" adopted in August 2003 by the IT Strategic Headquarters, it was also set forth as one of the urgent goals to be achieved.

The "Committee for the Advancement of Emergency Message Systems," set up in November 2003 under the "Information and Communications Technology Sub-Council," has been carrying out deliberations thereupon and recently compiled its findings as a report.

## Results of Survey on Actual Status of Information Security Measures

MPHPT has conducted a questionnaire survey on the implementation status of information security measures in the private sector, in order to gather information for deployment of information security-related policy measures and to ensure information security of e-government and e-local governments. The survey pool included companies listed in the first and second sections of the Tokyo Stock Exchange, local public entities, hospitals, universities and research institutes. This announcement was the third of its kind, following up on the announcements concerning the May 2002 survey (FY2001 survey of listed companies) and concerning the September 2002 survey (FY2002 survey of small- and medium-sized enterprises).

Fig. 1. Incidents of information security breaches over the past year



[Outline of survey results]

1. Incidents of information security breaches remained constant.

About 61% of listed companies suffered some kind of information security breaches over the past year. (See Fig. 1.)

By type of attacks, computer viruses/worms infected about 98% of listed companies. This figure remained constant in comparison with the previous survey. (See Fig. 2.)

(2) Slightly increased firewalls

About 89% of listed companies have introduced firewalls (hardware, including servers, appliance equipment) for preventing illegal access, showing an increase of two percentage points compared to about 87% in the previous survey.

The ratio of listed companies introducing firewalls into clients through software, a newly surveyed item for the first time, is about 10%. (See Fig. 3.)

(3) Implementation status of security policy remains at a lower level.

The ratio of listed companies already implementing a security policy is about 36%, up about seven percentage points compared to about 29% of the previous survey results, still remaining at a lower level.

As such, under the situation where security breaches including viral infection, although security awareness has, in general, gradually been heightened, countermeasures are still at a lower level. (See Fig. 4.)

Fig. 2. Breaches by type

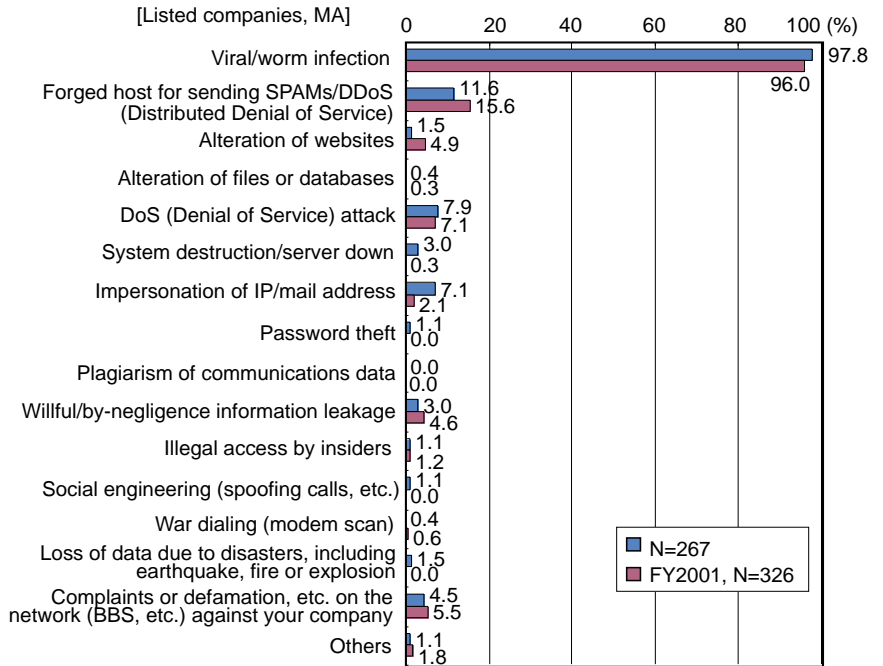


Fig. 3. Cases of access control to intra-company networks

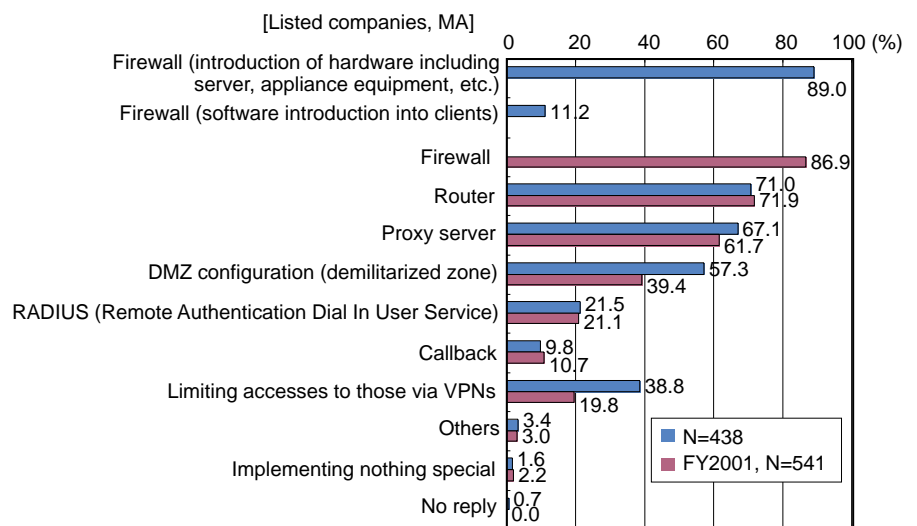


Fig. 4. Security policy development

