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## COMMUNICATIONS NEWS

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# "Study Group on Advanced Use of Electronic Tags in the Age of Ubiquitous Networks" Compiles Interim Report

Since April 2003, MPHPT has been holding the "Study Group on Advanced Use of Electronic Tags in the Age of Ubiquitous Networks" (Chair: Dr. SAITO Tadao, Professor Emeritus, the University of Tokyo). The Study Group has been deliberating upon comprehensive measures for promoting advanced use of electronic tags that are seen to be applied to various fields, including medicine, food and education. The Study Group has compiled its findings as an interim report describing basic approaches toward the future.

The outline of the interim report is as follows:

## 1. Background

Currently, electronic tags as alternatives of barcodes are used mainly for physical distribution management systems and "in and out of room" management system, etc. In the age of ubiquitous networks, however, in addition to alternative functions of barcodes, electronic tags will open up a path to versatile and networked use thereof in such foreseen fields as medicine, food and education. Thereby electronic tags are expected to contribute to the formation of a ubiquitous network society and the realization of the world's most advanced IT nation.

Thus, the "e-Japan Strategy II" (adopted in July 2003 by the IT Strategic Headquarters) points out that there is a need to make efforts at an early stage to address R&D and verification experiments toward advanced use of electronic tags.

## 2. Deliberations upon advanced use of electronic tags

i) Advanced use of electronic tags linking networks

Versatile applications of electronic tags in various fields through strength-

ened interaction of electronic tags and networks are deliberated upon. In particular, through compilation of future applications in 18 fields focusing on medicine, food and education, the interim report proposes advanced use models, etc.

ii) Feasibility of new frequency introduction

At present, frequency bands of 135 kHz, 13.56 MHz and 2.45 GHz are available for electronic tags in Japan. In order to assign additional frequency bands to various fields, after deliberations upon increased options for frequencies, it is found that frequency bands around the 950 MHz are assignable sooner to new systems using electronic tags. Toward introduction of new frequency bands, the interim report recommends that it is vital to implement verification experiments and deliberate upon detailed regulatory frameworks.

## 3. Estimates, etc. of economic ripple effects

Economic ripple effects as of 2010 brought about by advanced use of electronic tags are estimated as follows:

i) In the case where technological issues are solved, costs are lowered, and dissemination of electronic tags

is promoted through expansion of applicable fields: approximately 31 trillion yen

ii) In the case where technological issues are partly solved, a sufficient environment for dissemination is prepared, and dissemination of electronic

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tags is promoted to some extent: approximately 17 trillion yen

iii) In the case where issues concerning technologies/standardization and security are unsolved, and dissemination of electronic tags is not effectively promoted: approximately 9 trillion yen

#### 4. Measures for promotion

This interim report, based upon discussions at the Study Group, proposes the following measures for promotion:

- i) Implementation of verification experiments involving users
- Promotion of verification experiments involving users, R&D on various key technologies, etc.

- ii) Promotion of advanced use of electronic tags utilizing business methods, etc.

Measures for promotion, such as R&D on new applications of electronic tags, development of business methods, etc. and presentation thereof

- iii) Assignable frequencies around 950 MHz band

Implementation of verification experiments on electronic tag functions responding to new frequencies, interference with other systems, etc.; Implementation of detailed studies based upon the verification experiments

- iv) Preparation and use of testbeds toward advanced use of electronic tags
- Preparation and use of testbeds, as a

common environment, for enabling various verifications

- v) Promotion of standardization

Promotion of standardization in collaboration with European, U.S. and Asian countries

To this end, this interim report proposes that a promotion mechanism shall be established with concerted efforts of industry, academia, government and users; the mechanism shall be core frameworks for promoting information exchanges across industries, R&D and standardization, verification of applications employing user opinions, and verification/assessment of new frequency use.

## "Study Group on Local Media Content" Compiles Report

Since December 2002, MPHPT has been holding the "Study Group on Local Media Content" (Chair: Professor KOBAYASHI Koichi, Department of Media and Communication, Faculty of Sociology, the University of Toyo) with the purposes of i) investigating conditions and topics on leading-edge approaches to production and distribution of broadband content at the local community level, ii) grasping potential needs for broadband content, and iii) thereby contributing to promotion of various content production/distribution in response to preparation of broadband platforms.

In June 2003, the Study Group compiled its findings as a report after a series of meetings.

The outline of the report is as follows:

### I. Reasons why local media content is to be focused on now (Chapter I.)

"Local media content": Content and broadcast programs on information and topics specialized in a local community, produced mainly by local media such as broadcasters, etc., local governments, public involvement, NPOs, and distributed/broadcast by local media

#### 1-1. Purposes of promoting local media content

- i) Promotion of local community (necessary information for community

life, PR on local industries, introduction of community activities, delivery of administrative information, etc.)

- ii) Correction of over-concentration of content production/transmission to Tokyo
- iii) Enabling support for local residents in producing content, improvement of media literacy
- iv) Rediscovery of local community through public involvement in contents production/distribution

#### 1-3-3. Policy trends in local media content (Chapter I. 1-3-3.)

- i) The "Basic IT Strategy II (e-Japan Strategy II)" clearly prescribes that it is vital to promote transmission of local digital content in seven leading fields of IT utilization.
- ii) The "Program for Promoting the Creation, Protection and Exploitation of Intellectual Properties" also clearly states that it is essential to promote content production/distribution in local communities.

#### 2. Current status of local media content and leading measures therefor (Chapters II and III)

- Improvement of environments for local media content production/dis-

tribution (aspect of hardware) (Chapter I. 1-3.)

Local media content production/distribution may be expanded through preparation of broadband infrastructures, launch of terrestrial digital broadcasting, dissemination of digital content production technologies (e.g., digital video cameras, PCs for editing programs, etc.).

- Current status of local media content (Chapter II)
- i) Shares of information volumes transmitted from Tokyo are on an upward tendency (from 14.2% in 1991 to 15.3% in 2001) (Chapter I. 1-1-1)

ii) According to results of a survey conducted by the Study Group, businesses related to local media content reply "lacking capital/budgets" (52.2%), "difficult to maintain profitability" (38.1%), "lacking staff" (48.3%), etc. This survey illustrates that the current situation surrounding those businesses is too severe to drastically accelerate production/distribution of local media content. (Chapter II. 2-1.)

Even under these severe circumstances, leading efforts are being made.

#### • Leading efforts (Chapter III.)

- i) Promotion of public involvement in the production/distribution process

- 1-1.: Utilization of local human resources
- The Hitoyoshi-Kuma wide-area administrative cooperative (a special local public body for offering a portion of the administrative services of member local governments) is fostering talented people, called "resident directors", from residents as a human resource development program, and those "resident directors" are producing TV programs. The TV programs produced by resident directors were broadcast by Kumamoto Cable Network and Kumamoto Asahi Broadcasting Co., Ltd. (KAB).
- 1-2 : Participation of NPOs, etc.
- MUSASHINO-MITAKA CABLE TELEVISION Inc. is broadcasting TV programs planned and produced by NPO "MUSASHINO-MITAKA CITIZEN TV" (MMCTV) on a regular basis.
- ii) Tie-ups between businesses, etc.
- 2-1.: Exchanges of TV programs among the same industry
- Four independent UHF TV stations (Television Saitama (TVS), Chiba Television Broadcasting Corp., Television KANAGAWA, Inc. (TVK) and Tokyo Metropolitan Television Broadcasting Corp. (MXTV)) are airing programs exchanged among the four stations on a regular basis.
- 2-2.: Exchanges of TV programs between different media
- Cable TV systems in Toyama Prefecture are mutually interconnected via fiber-optic networks for sharing content. They realized tie-ups with different media through distribution of materials made from cable TV programs (content) via the Internet.

- iii) Collaboration between local public entities and businesses
- In Tottori Prefecture, all cable TV systems in the prefecture are connected to the Tottori Information Highway (intra-prefectural fiber-optic network) now that construction of the Information Highway has been completed. The Tottori Prefectural Government, with the private sector, is preparing an "inhabitants channel" for the Information Highway.
- iv) Transmission of local media content nationwide
- To broadcast the programs as mentioned in 1-1 via CS broadcasting media (SKY PerfecTV)

### 3. Measures to be taken for promoting production/distribution of local media content (Chapter IV.)

Once the market size of local media content and the capacities of the local media content businesses causes a bottleneck, support measures for production/distribution of local media content will be deliberated. Leading measures will be taken on a nationwide basis, as the first step.

- 1) Leading cases to be applied nationwide (Chapter IV. 4-1.)
- The government will encourage the applications of leading cases on a nationwide basis, so as to prevent leading cases from becoming ephemeral and limited attempts.
  - More specifically, the government will i) develop models for application to other areas, such as the public involvement type and business tie-up type, ii) verify/analyze leading efforts, and iii) announce outcomes as "case studies" and "guidance reports."

- 2) Establishment of a tie-up/collaboration scheme among stakeholders (Chapter IV. 4-2.)
- To support nationwide collaboration deployment of entities that are carrying out leading efforts concerning local media content
  - Specifically, to implement opinion exchanges among stakeholders on establishment of a nationwide organization consisting of relevant various conferences, opening of a portal site introducing leading efforts in each local community, establishment of an awards system, etc.
  - To encourage production of local content by intellectual properties headquarters set up within local public bodies
- 3) Exploitation and protection of intellectual properties (Chapter IV. 4-3.)
- It is necessary to make efforts enabling all people to gain the benefit of access to content made by local public bodies.
  - To promote digital archives containing cultural assets in local communities, and use thereof as materials for content production
- 4) Preparation of infrastructures and the environment for improving information transmission capacities (Chapter IV. 4-4.)
- To prepare infrastructures for use not only by the public but also for stable distribution of local media content
  - To prepare an environment whereby everyone is supported in terms of information transmission, in order to improve the information transmission of local media content

# Telecommunications Council Submits Report on the "Radio Policy Vision"

In recent years, as exemplified by cellular phones and wireless LANs, reflecting technological innovations in the ICT field, demands for radio spectrums are increasingly diversifying and enhancing.

In response to these circumstances, in August 2002, MPHPT inquired of the Telecommunications Council (Chair: Mr. AKIYAMA Yoshihisa) about the "mid- to long-term outlook of radio spectrum use and the role to be played the administration" and the Council submitted a report ("Radio Policy Vision") in July 2003.

Considering the trends in radio spectrum use, based upon forecasts of demands for frequencies and R&D trends in radio technologies, the "Radio Policy Vision" prescribes mid- to long-term outlook for radio spectrum use after five to ten years and the following three mid- to long-term goals of the future radio policy:

i) Contribution to realization of a ubiquitous network society through construction of the world's most advanced wireless broadband environ-

ment

- ii) Ensuring national security through use of diversified networks
- iii) Fostering internationally competitive wireless ICT industry

In order to realize goals, the Vision proposes that the Government shall promote the following seven policy measures to:

- a) drastically revise frequency assignment, including frequencies currently in use by public organizations, public utilities, the Government, etc., without adhering to the existing regulatory frameworks, so as to meet demands for frequencies necessary for facilitating introduction of core radio systems comprising the wireless broadband environment;
- b) prepare regulatory frameworks for frequency assignment/reallocation, including a compensation scheme for existing licensees upon the short-term reallocation, in consideration of the case where the existing licensees could not use radio

facilities that were acquired or constructed through investment in the past and should shoulder costs for removing existing facilities and for acquiring new facilities;

- c) promote smooth implementation of the system of "self-declaration of technical conditions compliance," facilitate market distribution of radio terminals, and consider expansion of target terminals in accordance with market trends;
- d) drastically revise the Spectrum User Fee System;
- e) promote R&D;
- f) strengthen international activities; and
- g) prepare a safe and secure environment for radio spectrum use.

In order to attain the mid- to long-term goals, MPHPT will, paying due respect to the Radio Policy Vision, effectively and efficiently implement appropriate measures in a timely manner as well as accurately take the concrete needs regarding radio spectrums, thereby realizing the goals at an early stage.