

MPHPT

August 13, 2003, Vol. 14, No. 9

*Please feel free to use the articles in this publication, with proper credits.***COMMUNICATIONS NEWS**

Biweekly Newsletter of the Ministry of Public Management, Home Affairs, Posts and Telecommunications, Japan

Toward Realization of Cutting-edge Testbed Networks for Japan-originating ICT Society

-- "Study Group on Desirable Next-Generation R&D Networks toward Ubiquitous Network Age" Compiles Report --

Since February 2003, MPHPT has been holding the "Study Group on Desirable Next-Generation R&D Networks toward Ubiquitous Network Age" (Chair: Professor Emeritus SAITOH Tadao, the University of Tokyo) for the purpose of deliberating upon comprehensive promotion measures toward construction of the next-generation R&D networks, which will comprise a key infrastructure of ubiquitous networks. The Study Group has compiled its outcomes as a report.

In order to encourage sustainable social development through the ICT revolution, it is indispensable to further advance information and communications technologies (ICT). In recent years, as an effective approach, strategic use of testbed networks has become a focus of attention.

Since testbed networks have higher functions in comparison with ordinary/conventional networks and are imposed comparatively relaxed restrictions when using thereof, leading projects such as development/verification of diversified technologies are enabled over the testbed networks. As a result, such networks will play a leading role in forecasting/demonstrating a future ICT society in five or 10 years ahead for the society and people in Japan. Furthermore, R&D process will be accelerated through feedbacks of opinions from the society and people to the R&D process, thereby R&D fruits thereof will swiftly penetrate in to the society and greatly contribute to the realization of intended ICT society.

Testbed networks have become a focus of attention, as exemplified by the

"e-Japan Strategy II" clearly stating necessity for such networks. Networks comprising a key infrastructure for ICT development is anticipated to head toward "ubiquitous networks" which will bring about drastic improvements in terms of convenience and reliability, through deployment of broadband platforms having versatile connectivity with any equipment/network at any time from anywhere, utilizing optical technologies, high-speed wireless technologies, full-scale shift to IPv6-ready networks, combination with consumer electronics with ICT functions, ultrasmall chips, etc.

Toward realization of the ubiquitous networks, it is essential to further enhance network-related technologies and to realize multifaceted applications. To this end, construction and utilization of the next-generation testbed networks equipped with new functions, etc. are a key to accelerating the realization thereof.

Against these backdrops, this report proposes requirements of necessary functions for testbed networks toward the ubiquitous network age and promotional measures, etc.

MPHPT will, paying due respect to this report, prepare the leading-edge testbed networks toward a new ICT society originating from Japan and R&D thereon.

CONTENTS

- Toward Realization of Cutting-edge Testbed Networks for Japan-originating ICT Society ----- 1
- Report Compiled for Realizing a Vision of New IT "Network-Robots" through Japan's Original Technologies ----- 2
- Interim Report from "Roundtable on Info-Communications Software" Announced----- 3

**International Policy Division,
International Affairs Department,
Ministry of Public Management, Home
Affairs, Posts and Telecommunications
1-2, Kasumigaseki 2-chome,
Chiyoda-ku, Tokyo 100-8926, Japan**

- We welcome your comments by:
feedback-newsletter@soumu.go.jp
Fax: +81-3-5253-5924
Tel.: +81-3-5253-5920
- MPHPT information is available at:
<http://www.joho.soumu.go.jp/eng/>

Report Compiled for Realizing a Vision of New IT "Network-Robots" through Japan's Original Technologies

Toward realizing a vision of Network-Robots, MPHPT held the "Study Group on Network-Robot Technology" (Chair: Prof. TOKUDA Hideyuki, Keio University) from December 2002 to July 2003, with the purpose of deliberating upon approaches for realizing network robots at the earliest possible stage. The Study Group has compiled its findings as a report.

In response to changes in the social structure accompanying aging in society and declining birthrate, environmental/energy issues, changes in industrial structure along with rapidly advancing ICT, globalization, etc., it is strongly anticipated to realize an invigorated society while maintaining industrial competitiveness. Considering these backgrounds, it is required to prepare an environment in which people can live in peace and to improve living standards such as a comfortable and affluent life. Namely, a "vigorous/safe/impressive/convenient" society suitable for the 21st century should be realized.

To this end, driving forces are to realize ubiquitous networks at an early stage as well as to create new values un-

der the new ICT environment, or the ubiquitous networks. For instance, one such driving force is the realization of "network robots."

The realization of network robots can be said to be fusion of two Japan's flagship technologies, that is, ubiquitous networks and robotic technologies. This is anticipated to bring about new lifestyles and solutions for various social issues, such as the aging society and medical care, and contribute to construction of a new ICT society in the 21st century through Japan's original technologies.

Keys to the realization are R&D on the network technologies linking ubiquitous networks and robots, and standardization thereof. In Europe and the U.S., various R&D projects are being carried out through concerted efforts of industry, academia and governments. Considering these trends, in order to ensure Japan's international competitiveness and encourage strategic R&D on network robots, there is a need to deliberate upon comprehensive promotional measures for network robots at an early stage.

Thus, MPHPT held the "Study Group

on Network-Robot Technology" from December 2002 to July 2003. The Study Group i) studied/analyzed R&D trends on network robot in Japan and overseas, ii) offered future perspectives on network robots, and iii) taking into consideration progress in study on network robots at the "Council for Science and Technology Policy" and the "IT Strategic Headquarters," deliberate upon R&D themes/standardization issues to be carried out, R&D promotion strategies and promotion measures for widespread use thereof for realizing a vision of network robots.

The Study Group has compiled its findings as this report. It is anticipated that this report will i) enable the realization of new ICT "network robots" at an early stage through Japan's original technologies, ii) bring about socioeconomic synergy in many fields through implementation of various efforts, iii) thereby help network robots penetrate into our daily lives and social structure, and iv) thus, greatly contribute to construction of a new ICT society in the 21st century through Japan's original technologies.

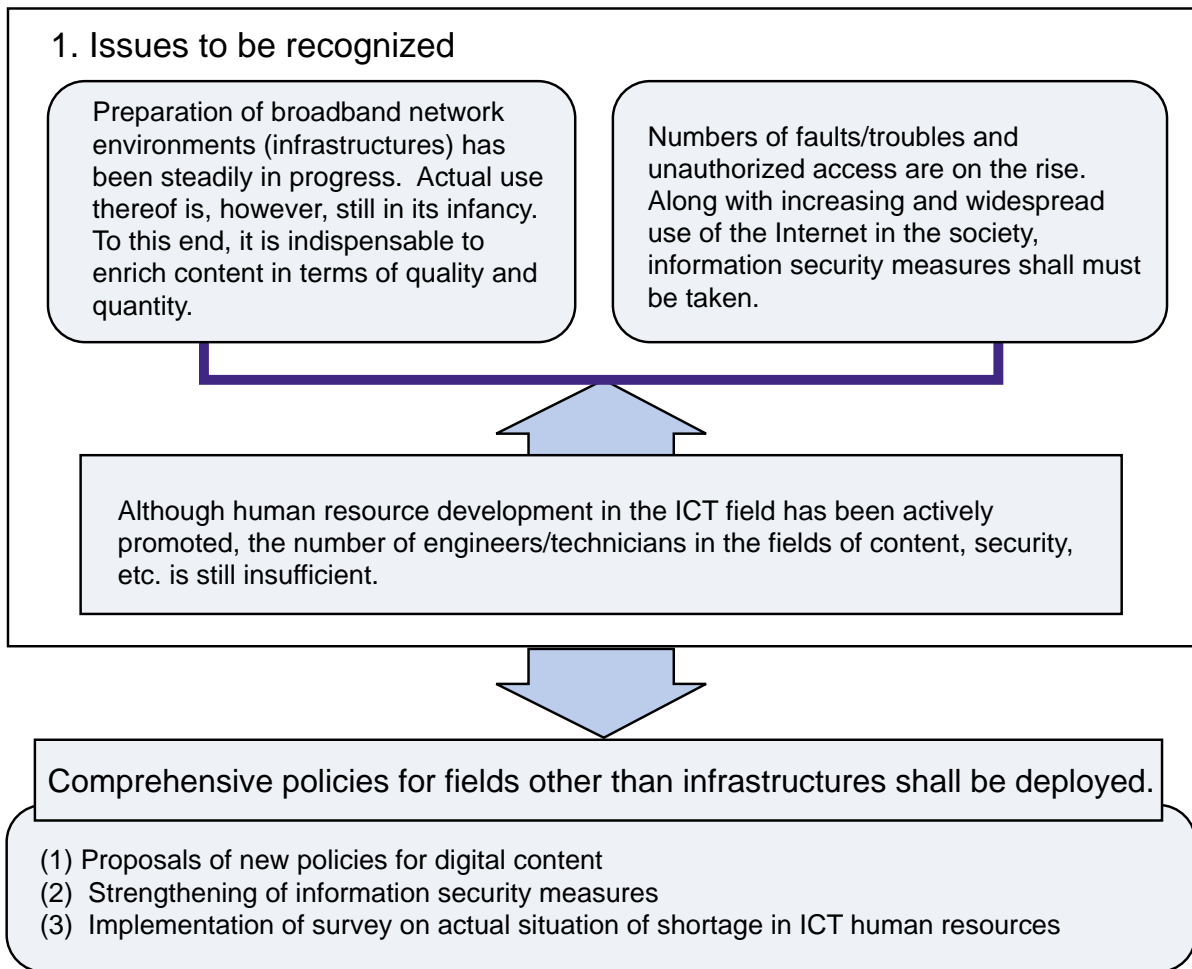
Interim Report from "Roundtable on Info-Communications Software" Announced

Since March 2003, MPHPT has been holding the "Roundtable on Info-Communications Software" (Chair: Prof. NAGAO Makoto, Kyoto University), an advisory group to Director-General for

Policy Planning (in charge of info-communications), with the purpose of deliberating upon basic directions on various current topics and their solutions, concerning digital content, ICT security and

human capacity building in these fields. The roundtable has compiled its findings as an interim report.

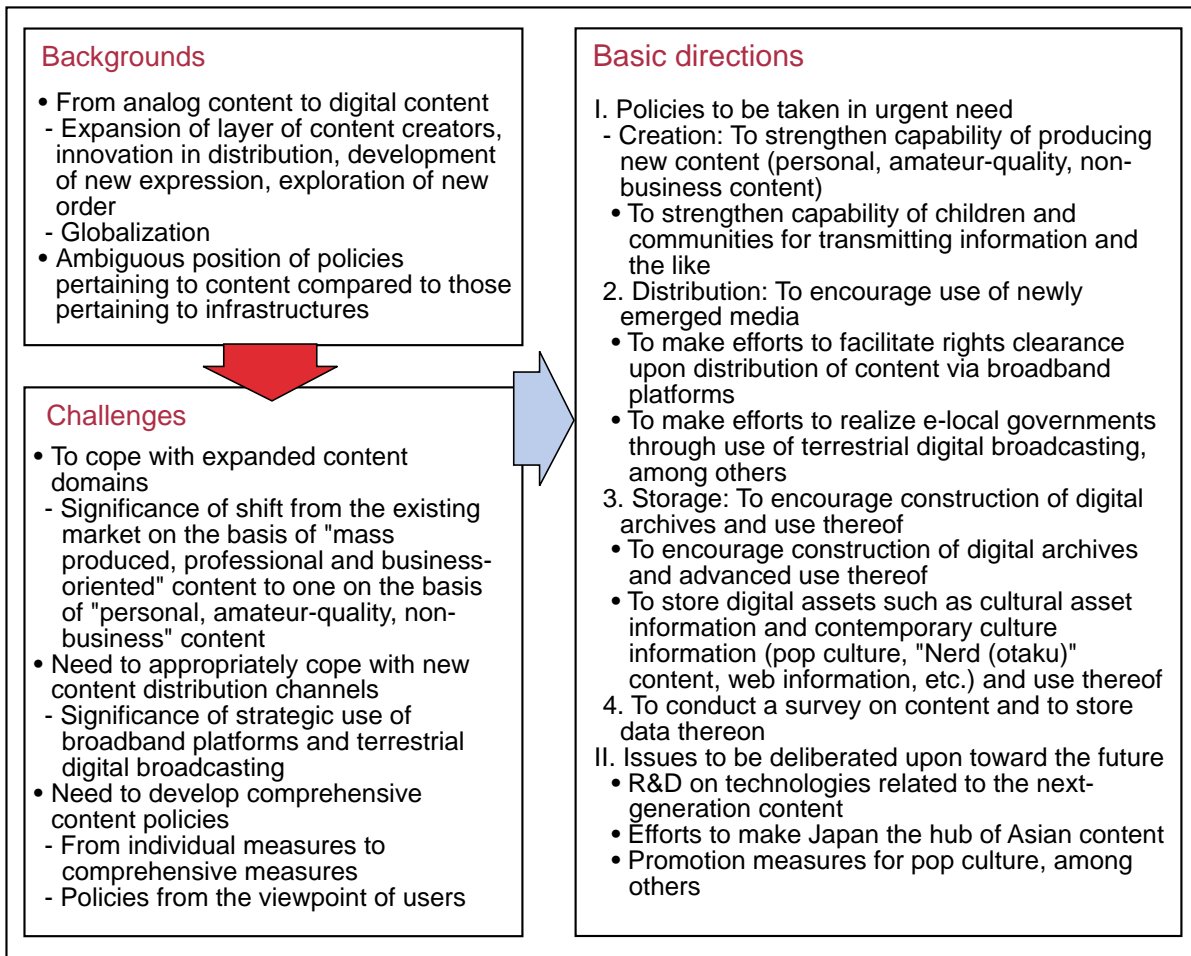
The outline of this interim report is as follows:



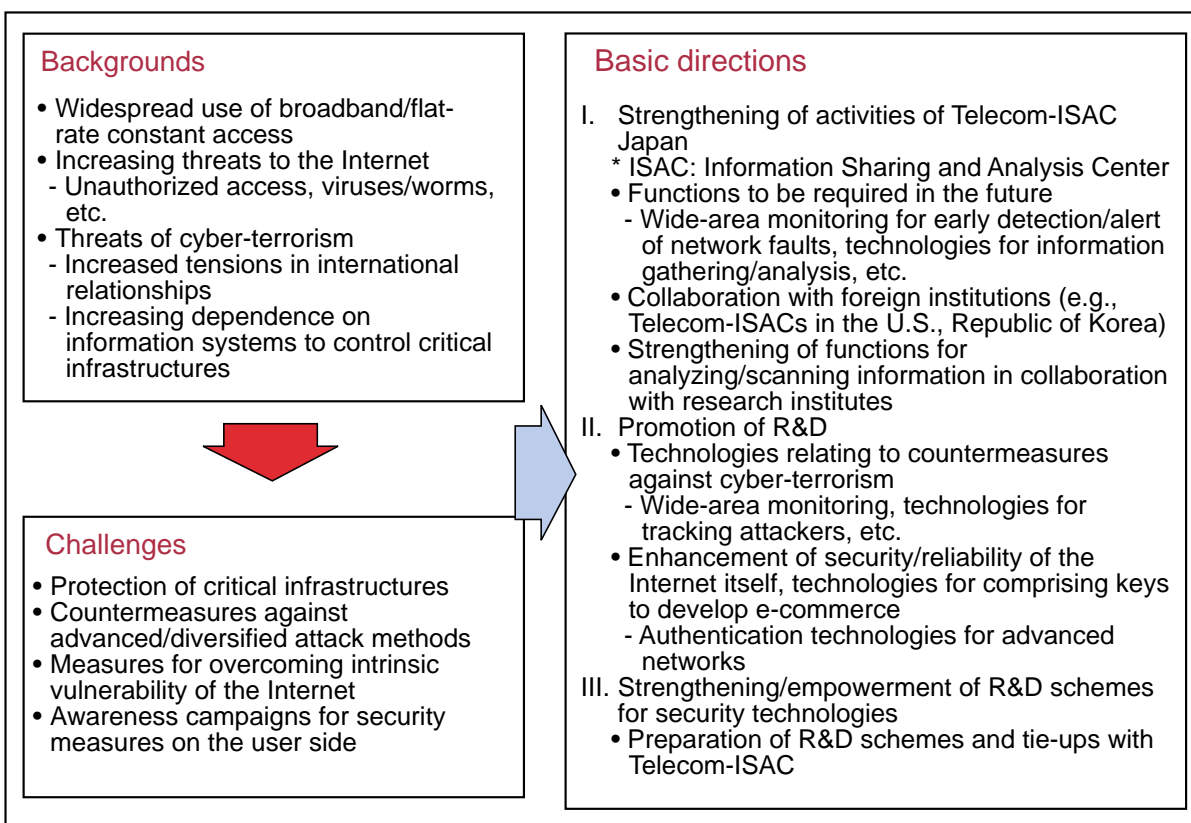
Continued on the next page

2. Challenges to be met for promoting ICT software and basic directions

(1) Proposals of new policies for digital content



(2) Strengthening of information security measures



Continued on the next page

(3) Implementation of survey on actual situation of shortage in ICT human resources

