

MPHPT

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COMMUNICATIONS NEWS

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"Policy Roundtable for Realizing Ubiquitous Network Society" Held

On March 1, 2004, MPHPT held the first meeting of the "Policy Roundtable for Realizing Ubiquitous Network Society" in order to exchange wide-ranging opinions, etc. regarding the concrete picture of a ubiquitous network society and measures for realization thereof.

1. Background and purposes

With respect to the Japanese economy still facing the severe situation, many problems are pointed out, for example, the financial difficulties of the national and local governments, the prolonged deflation, stagnant individual spending, the aging society and the low birthrate. However, signs of recovery are seen, mainly driven by the IT field, in such sectors as digital information consumer electronics (CE).

If Japan, with advantages in the IT field, intends to get the industrial sector back on the track to recovery and simultaneously enhance the creative capacity of the Japanese people, it must realize a ubiquitous network society in which convenient communications without restrictions will be allowed via broadband platforms, to which diversified equipment including CE will be connected. Such an initiative will play a significant role for creating new industries and so-

cial frameworks as Japan's contribution to the rest of the international community.

With an eye to contributing to new IT policies of the government after 2006, this Policy Roundtable will, from a wider viewpoint toward the realization of the full-fledged ubiquitous network society, exchange opinions, etc. on how to i) encourage "individuals" to foster their potentials through use of digital technologies, ii) realize a secure, safe and convenient society in any local community, and iii) improve Japan's international competitiveness and contributions to the international community.

(See **Figure** on the next page.)

2. Members

Opinion leaders from both the public and private sectors

3. Items to be deliberated upon

i) Grand design of the ubiquitous net-

work society and measures for realizing thereof

- ii) Promotion measures to prepare an environment for creating new businesses and developing human resources
- iii) Countermeasures against negative aspects of the ubiquitous network society
- iv) Others

4. Schedule

Starting from March 1, 2004, the Roundtable will compile its findings as a final report by December 2004.

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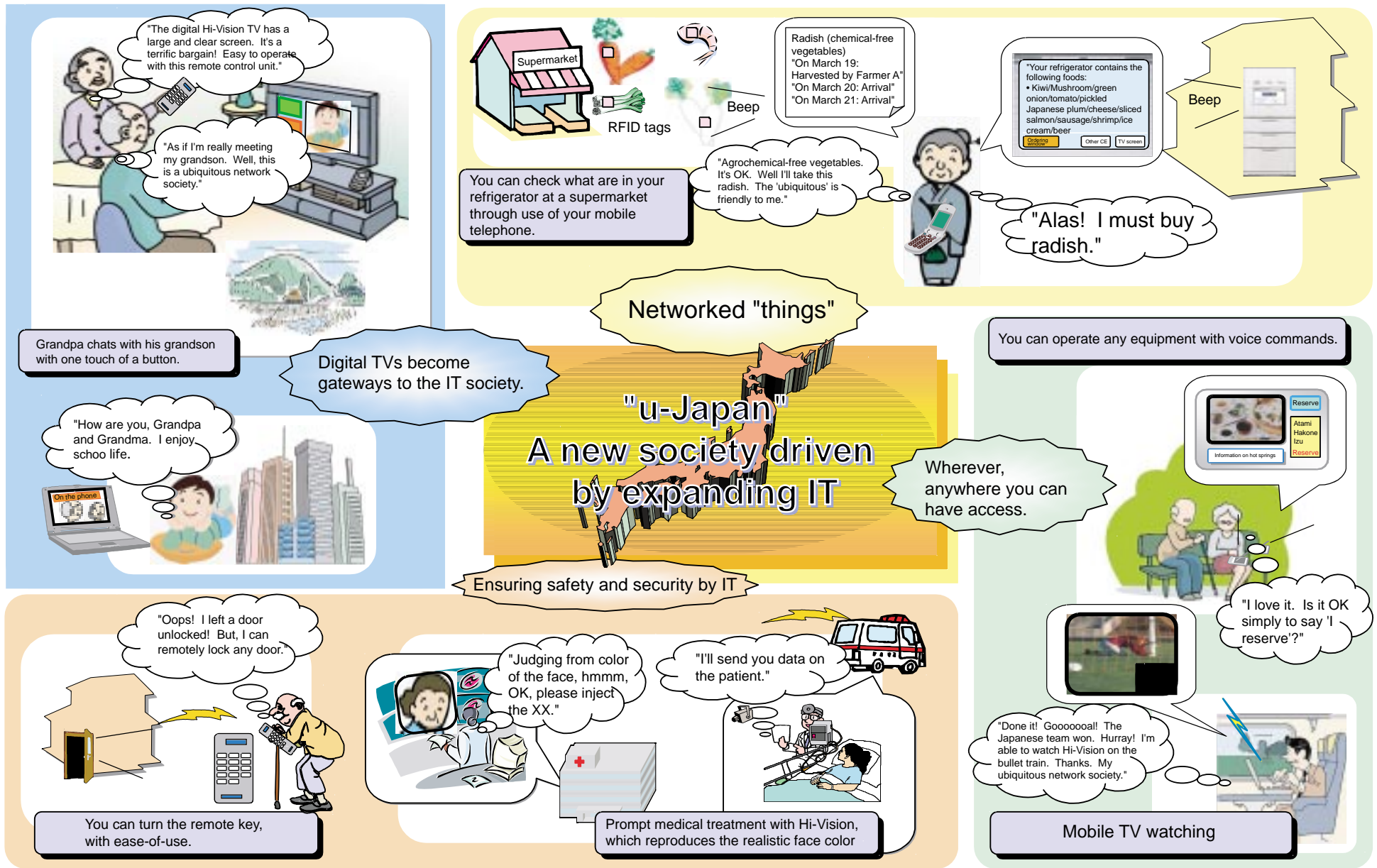
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Fig. Ubiquitous Network Society in 2010 (u-Japan)



"Advanced IT Joint Experiments for the Formation of an International Telecommunications Hub"

International Joint IT Experiments Respectively with China and Singapore

-- Toward realization of the "Asia Broadband Program" --

Since December 2003, MPHPT has been conducting international joint IT experiments respectively with China and Singapore, the "Advanced IT Joint Experiments for the Formation of an International Telecommunications Hub" as funded under the FY2003 budget based on the "Asia Broadband Program"*¹ (announced in March 2003).

Outlines of the international joint IT experiments are as follows:

[China]

1. Introduction

In December 2003, MPHPT set up a high-speed/-capacity international circuit between Japan and China and launched international joint IT experiments with China on a variety of applications.

Under these joint IT experiments (hereinafter, referred to as the "Japan-China Joint Experiments"), a large number of universities and private corporations from both Japan and China take part, aiming to 1) promote the diffusion of IPv6 and 2) achieve compatibility within a multilingual environment, in

order to promote information flow within the Asian region.

*Note 1: "Asia Broadband Program"

The "Asia Broadband Program" is positioned as one of important pillars to implement the "e-Japan Strategy--II," an IT policy that the Japanese government is promoting. The program is aiming at making the entire Asian region one of the information hubs in the world, through Japan's active contribution to preparation of broadband environments in Asia, listing the following targets (released on March 28, 2003):

2. "Japan-China Joint Experiments"

(1) These experiments are to be implanted under memoranda of understanding (MoUs)*², etc. between the governments of Japan and China, with the purposes of i) eliminating language barriers hindering communications among Asian countries/economies, ii) promoting information distribution within the Asian region, and iii) stimulating demand for broadband platforms.

*Note 2: The "memorandum of understanding to promote collaborative efforts in the information and communications field between the Ministry of Public Management, Home Affairs, Posts and Telecommunications of Japan and the Ministry of Information Industry of the People's Republic of China" (January 10, 2002) and the "memorandum of understanding to promote collaborative efforts on IPv6 between the Ministry of Public Management, Home Affairs, Posts and Telecommunications of Japan and the Ministry of Information Industry of the

People's Republic of China" (April 9, 2003)

(2) Outlines of each experiment

i) Construction of cross-cultural collaboration

This is to construct a virtual workspace for enabling different teams in Japan and China to collaborate.

Here, an environment is offered in which the Japanese and the Chinese can work regardless of language differences as if they are facing each other.

Through construction of such an environment, it is expected to stimulate demand for i) collaboration between Japan and China, ii) support from private business, and iii) cultural exchanges, broadband platforms, and to increase the amount of information flow.

ii) Joint production of digital content

By using the cross-cultural collaboration environment under i), universities in Japan and China jointly produce 3D digital content "Digital City Beijing," depicting a Chinese city.

Through the joint production, the utility of the cross-cultural collaboration environment will be evaluated and, if necessary, its production process will be made public. The 3D digital content "Digital City Beijing" is seen being widely used as PR media. Subsequently, such an experiment will pave a path to digital content archives containing cultural assets, etc. in Asia.

iii) Establishment of a corporate information database

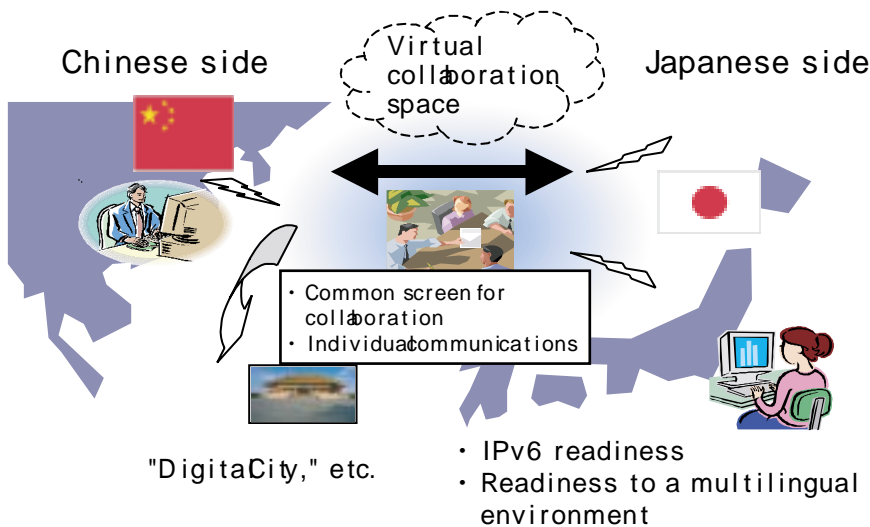
Japanese and Chinese corporations jointly establish a corporate information database containing information on Chinese corporations, which can be retrieved by the Japanese language through use of machine-translation func-

I. Targets of the Asia Broadband Program (by 2010)

- (1) Enable all people in Asia to gain access to broadband platforms (including access from various public facilities).
- (2) Construct international networks with sufficient bandwidths for linking directly each country, increase amounts of information flows "between Asia-North America" and "between Asia-Europe" to the same level as "between North America-Europe."
- (3) Facilitate transition of networks to IPv6-ready ones and make Asia the leading region in ICT.
- (4) Prepare environments under which Asian people are able to use ICT safely and easily.
- (5) Digitalize and archive major cultural assets in Asian countries/ economies.
- (6) Develop machine-translation technologies between major Asian languages and put them into practical use.
- (7) Dramatically increase the number of engineers and researchers in the ICT field in Asia.

Information distribution within Asia will be dramatically expanded, making Asia a world's leading information hub.

Fig. Environment for cross-cultural collaboration



tions.

This database will offer a retrieval service on detailed information on Chinese corporations, and opportunities to match needs of businesses and support transactions between corporations. Through implementation of its verification, it is anticipated that Japanese corporations would further deploy their business in China.

iv) Joint experiments on the new generation (Beyond 3G) mobile communications

Universities and research institutes in Japan and China jointly carry out basic experiments on international transmission, etc. concerning the new generation (Beyond 3G) mobile communications. Through implementation of these experiments, it is expected that the collaborative relationship between the two countries in the mobile communications field would be promoted.

v) Others

In addition to those experiments, other experiments on various applications, including distance learning, are being considered.

3. In conclusion

Through the series of "Japan-China Joint Experiments," it is expected that i) information distribution within the Asian region would be invigorated, ii) joint research between universities, research institutes, etc. in the two countries would be further developed, and iii) business deployment of the content industry, etc. would be promoted.

With respect to these policies, MPHPT will set up a website and implement various demonstrations, etc. for making the series of "Japan-China Joint Experi-

ments" widely known to the public on a one-by-one basis.

[Singapore]

1. Introduction

In December 2003, MPHPT set up an international fiber-optic circuit between Japan and Singapore and is currently carrying out international joint IT experiments with Singapore (hereinafter, referred to as the "Japan-Singapore Joint Experiments") on a variety of applications. Since 2001, the "Japan-Singapore Joint Experiments" have been conducted between MPHPT and the Infocomm Development Authority of Singapore (IDA).

These experiments were originally proposed by the Singaporean side at a

preparatory meeting for concluding the Japan-Singapore Economic Partnership Agreement (JSEPA).^{*3} Currently, the "Japan-Singapore Joint Experiments" are one of the important measures of the "Asia Broadband Program."

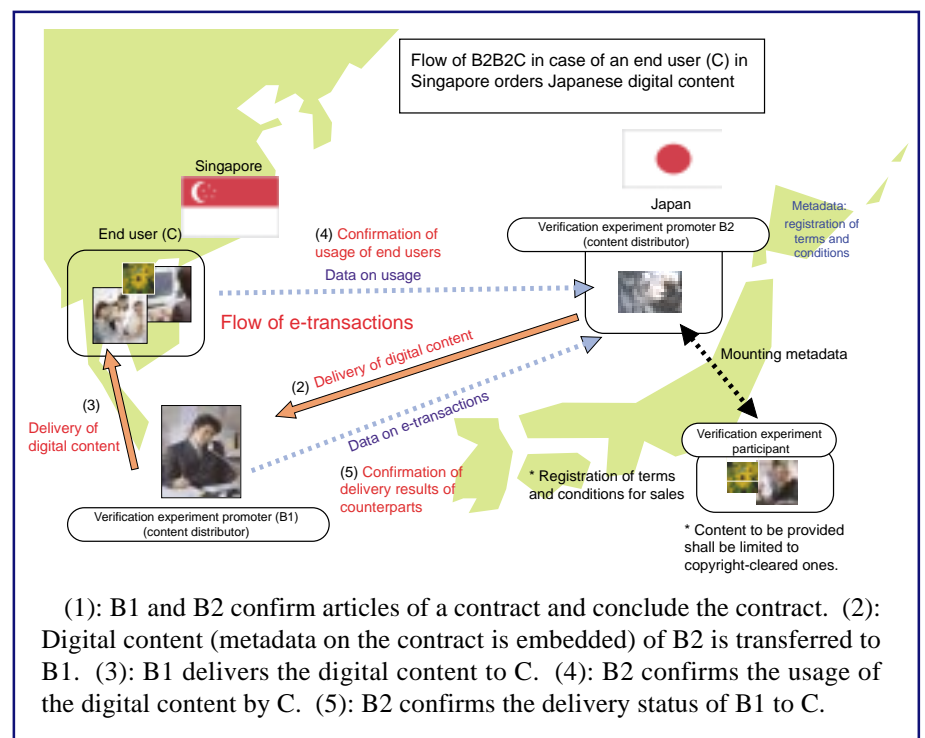
*Note 3: JSEPA: The first-ever free trade agreement (FTA) for Japan. JSEPA provides not only for trade investment but also for finance, information and communications technologies (ICTs), human resources development, etc. It came into force as of November 30, 2002.

The purpose of the "Japan-Singapore Joint Experiments" is to realize secure and smooth e-commerce in the digital content field. Experiments by FY2002 were carried out as verification experiments on Phase I key technologies and successfully concluded, for instance, verification experiments on i) video on demand (VOD) and live on demand (LOD) of high-definition video via international circuits, and ii) network key technologies including quality assurance technologies for international networks.

2. FY2003 "Japan-Singapore Joint Experiments"

Since FY2003, as Phase 2 based on the results of experiments in the past, practical experiments on international e-commerce in relation to digital content has been conducted.

With regard to e-commerce of digital content within Japan, commercial trans-



(1): B1 and B2 confirm articles of a contract and conclude the contract. (2): Digital content (metadata on the contract is embedded) of B2 is transferred to B1. (3): B1 delivers the digital content to C. (4): B2 confirms the usage of the digital content by C. (5): B2 confirms the delivery status of B1 to C.

actions are already in progress. As for international e-commerce of digital content, however, the so-called B2B2C (business-to-business-to-consumers) requires transactions through intermediary content providers in destination countries because of differences in business practices and systems. With respect to a series of procedures for e-commerce on networks, there is no effort to develop industry-wide unified standard procedures. Thus, it is vital to accumulate actual experiments through such practical experiments.

The **Figure** shows the procedural flow in cases of B2B2C transactions where such digital content as animation videos are delivered to consumers via a provider in the destination country.

In order to smoothly and securely realize the series of procedures, it is essential to prepare standard protocols for the procedures and to construct a platform equipped with technological functions to automatically process such procedures. The **Figure** shows the flow of B2B2C transactions on such a platform.

According to types of content, only sure B2B contracts suffice as e-commerce contracts. A classification of contracts is as follows:

i) Contracts with limits on usage by end users (B2B2C)

Contracts needing to strictly implement digital rights management on movies, videos, animations, music titles, etc. In the **Figure**, the platform automatically

limits the number of deliveries by B1 and the number of viewing/listening by C; and the platform automatically inform B2 of the situation.

ii) Contracts with no limit on usage (B2B)

Like cases of travel guide videos, movie previews, etc., it is sufficient to firmly conclude contracts with counterparts (B1) in the other country. Cases of contracts between reliable parties, such as broadcasters are included. According to the **Figure**, contracts not needing (4) but simply needing confirmation of actual delivery results (5).

In these experiments, this platform will be constructed on a trial basis to implement verification experiments on international e-commerce for verifying the practical utility of the platform. Subsequently, MPHPT and IDA will present a model platform for smoothly and securely enabling international e-commerce with the purpose of contributing to standardization in the future.

3. Awareness campaigns for the Asia Broadband Program

i) Establishment of a website

Since the end of February 2004, MPHPT opened a website "Asia Broadband Program" (<http://www.asia-bb.net/>) for providing the public with information on the efforts to address challenges concerning the Program. The website comprehensively introduces an outline of the Program to be implemented by

MPHPT, concrete initiatives, future directions, etc. as well as details of advanced IT joint experiments respectively with China and Singapore. In addition, this website contains a page to offer realtime information concerning ongoing experiments will be opened.

ii) "Asia Broadband Symposium" to Be Held

MPHPT will hold the "Asia Broadband Symposium" at Chiyoda Hosokai Kaikan, 1-1, Kioi-cho, Chiyoda City, Tokyo, on March 12, 2004 (free of charge). At this Symposium, various efforts to address the "Asia Broadband Program," lectures by experts will be introduced, and a panel discussion by government officials from Asian countries, etc. will be held. For details, please refer to the website.

4. In conclusion

Under these international IT joint experiments respectively with China and Singapore, introduced in this article are joint production of digital content, establishment of corporate information database, e-commerce and various applications. Toward FY2004, diversified applications, including distance learning and e-commerce, will be further enhanced and these efforts will lead to development in both quality and quantity of information distribution within the Asian region.