

MPHPT

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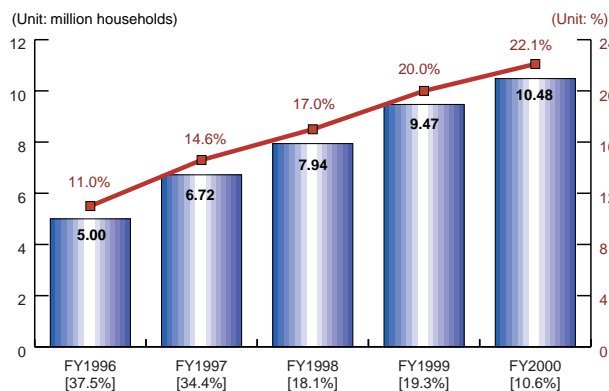
COMMUNICATIONS NEWS

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

Penetration of Cable TV

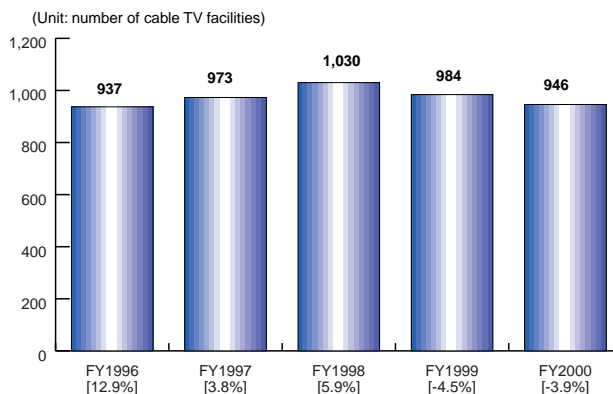
The number of household subscriptions to cable TV at the end of FY2000 is 10.48 million, increased by 10.6% over the previous fiscal year. The numbers of cable TV facilities and operators were 946 and 646, respectively.

Fig. 1. Changes in number of household subscriptions and penetration rate



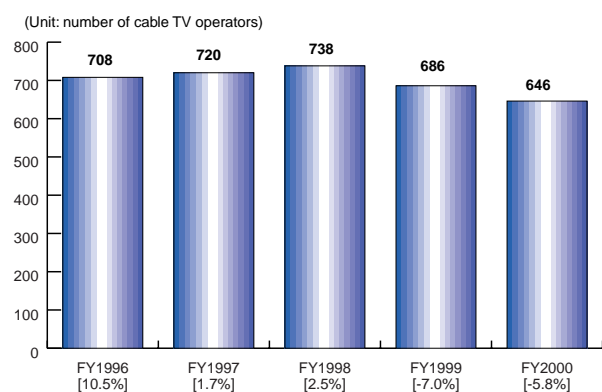
Notes: 1. Figures indicate data at the end of each fiscal year.
 2. Figures in brackets indicate growth rates of the number of household subscriptions over the previous fiscal year.
 3. Growth rates are calculated based on the number of households in the Basic Residential Resisters. As for FY2000, data are based on the number of households in the Basic Residential Resisters at the end of FY1999.

Fig. 2. Changes in number of facilities and growth rate



Note: Figures indicate data at the end of each fiscal year. Figures in brackets indicate growth rates of the number of facilities over the previous fiscal year.

Fig. 3. Changes in number of cable TV operators and growth rate



Notes: 1. Figures indicate data at the end of each fiscal year. Figures in brackets indicate growth rates of the number of cable TV operators over the previous fiscal year.
 2. The numbers of cable TV operators in and before FY1999 represent the totals of numbers of operators in the Regional Bureaus of Telecommunications and Okinawa Office of Posts and Telecommunications, including overlapping data. The relevant figure calculated with this method for FY2000 was 660.

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Cable TV Penetration (as of the end of FY2000)

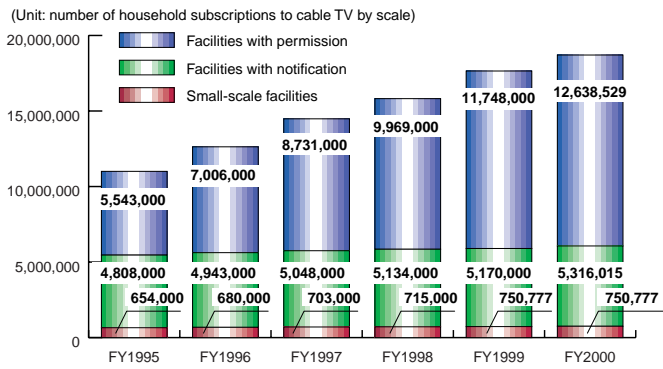
1. Number of household subscriptions by facility scale

The number of household subscriptions increased by 6% over the previous fiscal year to 18.71 million.

Notes: 1. SO: Facilities engaged in self-originated broadcasting
 2. RT: Facilities engaged in simultaneous retransmission only
 3. Small-scale facilities: Facilities with 50 or less drop terminals engaged in simultaneous retransmission only

Segment		FY1999	FY2000	Increase/decrease	Growth rate
Facilities with permission (with more than 501 drop terminals)	SO*1	9,428,624	10,442,442	1,013,818	10.8%
	RT*2	2,319,242	2,196,087	-123,155	-5.3%
	Total	11,747,866	12,638,529	890,663	7.6%
Facilities with notification (with 51 - 500 drop terminals)	SO*1	42,258	33,714	-8,544	-20.2%
	RT*2	5,127,981	5,282,301	154,320	3.0%
	Total	5,170,239	5,316,015	145,776	2.8%
Small-scale facilities with notification (with 50 or less drop terminals)	SO*1	-	-	-	-
	RT*2	729,171	750,777	21,606	3.0%
	Total	729,171	750,777	21,606	3.0%
Grand total	SO*1	9,470,882	10,476,156	1,005,274	10.6%
	RT*2	8,176,394	8,229,165	52,771	0.6%
	Total	17,647,276	18,705,321	1,058,045	6.0%

Fig. 4 Number of household subscriptions by facility scale



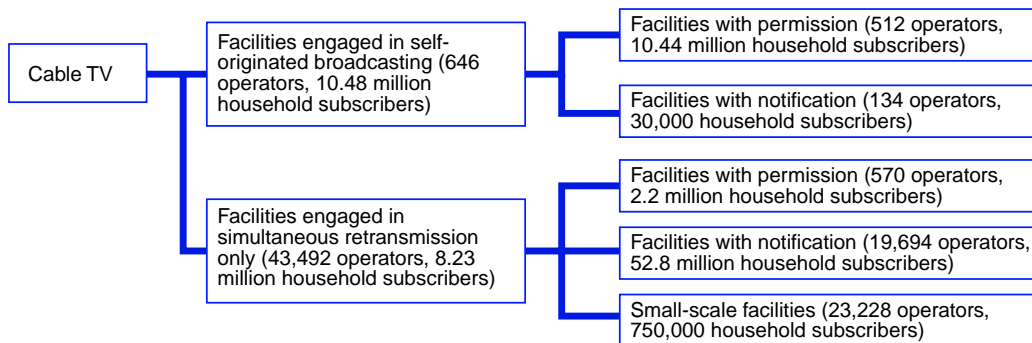
2. Numbers of facilities and operators by scale

The number of facilities is about 73,000, a 3% increase over the previous fiscal year; and the number operators approximately 44,000, a 0.5% decrease from the previous fiscal year.

Segment		Number of facilities				Number of cable TV operators	
		FY1999	FY2000	Increase/decrease	Growth rate	FY1999	FY2000
Facilities with permission (with more than 501 drop terminals)	SO	656	651	-5	-0.8%	526	512
	RT	1,283	1,269	-14	-1.1%	594	570
	Total	1,939	1,920	-19	-1.0%	1,120	1,082
Facilities with notification (with 51 - 500 drop terminals)	SO	328	295	-33	-10.1%	160	134
	RT	36,034	37,114	1,080	3.0%	20,033	19,694
	Total	36,362	37,409	1,047	2.9%	20,193	19,828
Small-scale facilities (with 50 or less drop terminals)	SO	-	-	-	-	-	-
	RT	32,261	33,369	1,108	3.4%	23,052	23,228
	Total	32,261	33,369	1,108	3.4%	23,052	23,228
Grand total	SO	984	946	-38	-3.9%	686	646
	RT	69,578	71,752	2,174	3.1%	43,679	43,492
	Total	70,562	72,698	2,136	3.0%	44,365	44,138

Note: The numbers of cable TV operators in and before FY1999 represent the totals of numbers of operators in the Regional Bureaus of Telecommunications and Okinawa Office of Posts and Telecommunications, including overlapping data.

[Reference]



Countermeasures against Advertisement, SPAM and Other Unwanted Mails Sent to Mobile Telephone Terminals

As Internet access services for mobile telephone (cellular phone, PHS) terminals become prevailing, unwanted advertising, publicity or solicitation e-mails (so-called “junk mails”) without consent of the users are becoming a social issue.

Against these backdrops, MPHPT requested the telecommunications carriers involved to carry out surveys and research on the following items at the earliest date, and to report those results.

In response to this request, those telecommunications carriers have submitted reports as follows:

1. Number of complaints/consultations from users per month and content of the complaints/consultations (See Fig.)

The number of complaints/consultations to telecommunications carriers involved has shown a sharp increase since

January 2001.

2. Countermeasures currently being taken (See Table 1.)

To date, those telecommunications carriers are taking such countermeasures as i) assignment of e-mail addresses other than telephone numbers and changes of e-mail addresses, and ii) blocking of e-mails from specific e-mail addresses. Furthermore, some carriers are implementing services, including i) reception/display of a subject separate from content and ii) a usage-sensitive rate system with a partial flat-rate portion for a certain number of characters.

3. Countermeasures planned to be taken from now on

Those telecommunications carriers reported that they will subsequently make efforts to let consumers know the countermeasures currently being taken.

Some carriers reported that they will take additional countermeasures such as i) expansion of the number of e-mail addresses to be blocked, ii) change of e-mail address default setting method from telephone numbers to alphanumeric combinations, iii) change of e-mail reception rates, and will study technical conditions for introducing separate reception/display of an e-mail subject.

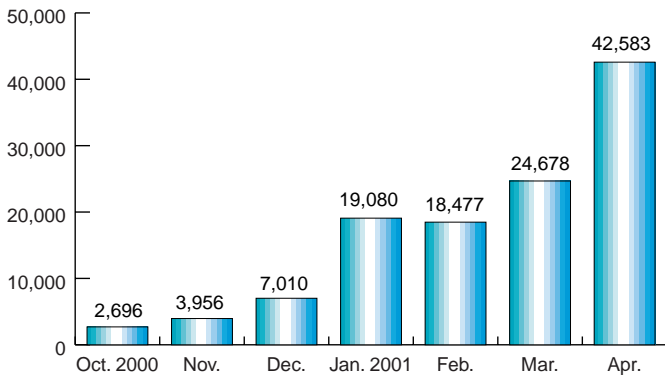
MPHPT will continue to watch i) PR activities of telecommunications carriers for letting consumers know the countermeasures currently being taken, ii) studies for introducing new countermeasures, and iii) the progress of implementation status of newly introduced countermeasures. In addition, if necessary, MPHPT will request those carriers carry out further study/implementation of ad-

ditional countermeasures in order to adequately prevent junk mails.

1. Number of complaints/consultations from users per month and content

1) Monthly changes in the number of user complaints and consultations

(Unit: number of complaints and consultations)



Note: The numbers indicate an aggregated total of six groups providing e-mail services for cellular/PHS terminals.

2) Detailed content of the complaints and consultations (typical examples of complaints/consultations)

- Want to know ways for blocking junk mails.
- Want to change my e-mail address for avoiding advertisement, SPAM and other unwanted mails from unknown addresses.
- Why can junk mails be sent to my address which is not disclosed?
- It is absurd that I must pay the e-mail reception fee for nuisance e-mails.
- Want to know senders of junk e-mails.
- What shall I do when I receive a chain mail, saying "If you don't forward this mail to five acquaintances, you'll be met with misfortune."

2. Specific content of countermeasures currently being taken

Countermeasures currently being taken		Carriers taking the countermeasures
Countermeasures concerning e-mail address	Upon subscription, users can set users' own address instead of the telephone-number-based default address setting which is vulnerable to RDD (random digit dialing) systems.	au, DDI POCKET and Astel
	Users can change the telephone-number-based default address setting by carriers to users' own address.	NTT DoCoMo (cellular phone), J-Phone and TU-KA
	Allow users to change addresses already set by operating their terminals.	NTT DoCoMo (cellular), J-Phone and Astel
	Allow users to set their terminals to receive only from addresses with additional four-digit (or thereabouts) ID numbers and not to receive mails from senders who have not been informed by said users of the users' addresses.	NTT DoCoMo (cellular)
Method of e-mail reception	In addition to the existing reception method which receives all the text, subjects and sender's addresses, users may select e-mail reception methods, for instance, partial reception/display of subjects and sender's addresses before receiving content and attached files, so that users can delete junk mails before reading them.	au, TU-KA, DDI POCKET and Astel
	Allow recipients to block e-mails/calls from specific sender's addresses.	NTT DoCoMo (cellular), J-Phone, au, TU-KA, DDI POCKET
Reception fee	Regarding reception fees, following tariffs are introduced: - Subject-only reception is not charged. - A usage-sensitive rate system with a partial flat-rate portion for a certain number of characters is introduced.	J-Phone, au and Astel

3. Countermeasures planned to be taken from now on and schedule thereof

Measures	Schedule	Carrier
1. Efforts to let consumers know countermeasures against junk mails currently being taken	(Continuously)	Carrier
2. Change of e-mail address default setting method from telephone numbers to alphanumeric combinations	Early July	NTT DoCoMo (cellular)
3. Revision of fees for e-mail reception	Within CY2001	
4. Study on technical conditions for separate reception/display of an e-mail subject	—	
5. Expansion of the upper limit of number of e-mail addresses to be blocked/received from specific addresses, from five to 10	Early June	
6. Addition of functions to block e-mails to telephone number-based e-mail addresses (currently, even if users change their addresses to their own choices, telephone number-based e-mail addresses still function), and change of e-mail address default-setting method from telephone numbers to alphanumeric combinations	Within CY2001	NTT DoCoMo (PHS)
7. As regards functions for blocking e-mails from specific addresses, consider addition of functions when facilities are replaced.	—	Astel

Deliberation on CDMA2000 1xEV-DO System Started at the Telecommunications Council

On June 6, 2001, the Telecommunications Council (Chair: Mr. Yoshihisa Akiyama) commenced deliberations on "Technical regulations for CDMA2000 1xEV-DO System."

The outline is as follows:

[Backdrop]

In Japan, mobile communications systems (cellular phones) based on the code division multiplex (CDMA) method was commenced in 1998, and as of the end of April 2001, the subscriptions reached 8.7 million. Along with the start of the Internet access service, etc., the data communications via cellular telephones is rapidly penetrating, and communica-

tions traffic per capita is increasing. The number of subscribers and communications traffic are on the upward trend. With the newly-developed technology, mobile communications systems are seen being able to meet various consumer demands such as realization of a high-speed mobile Internet environment.

In response to demands for high data rate communications, the development of high data rate mobile communications system (cdma2000 1xEV-DO, or code division multiple access 1x evolution-data only) compatible with CDMA mobile communications systems is being carried out. In the International Telecommunication Union (ITU), efforts to-

ward international standardization are being made.

[Outline]

Against such a backdrop, the Telecommunications Technology Sub-council under the Telecommunications Council commenced a study on necessary technical regulations for introducing CDMA2000 1xEV-DO systems having high affinity with CDMA mobile communications systems.

Outcomes of the deliberations are to be reported around October 2001, and MPHPT will prepare relevant ordinances, etc. based on the report.

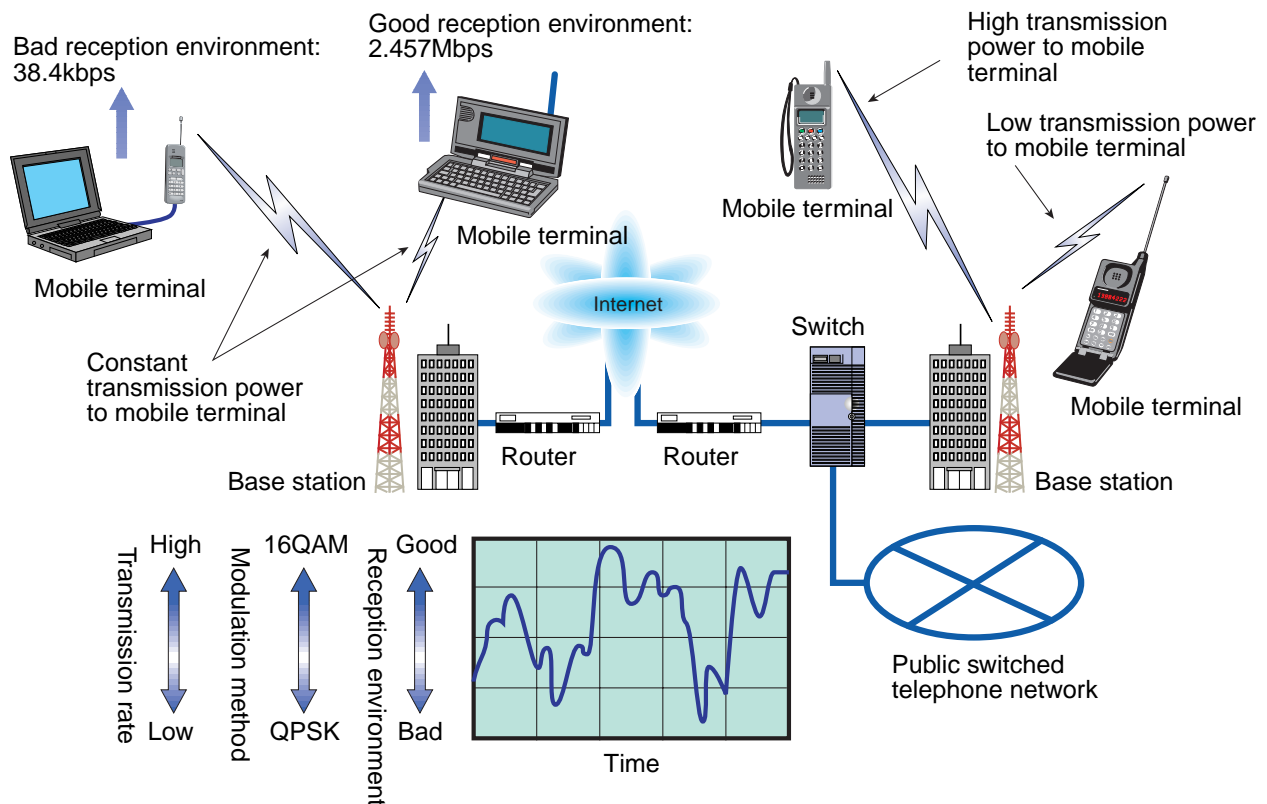
Fig. HDR mobile data communications

HDR mobile data communications service

Transmission power of base stations (forward links) is set at a constant level. Modulation methods, etc. are adjusted as rapidly as every few milliseconds for each mobile terminal to maximize the data rate in accordance with the condition surrounding the mobile terminal. This mode is dedicated for data communications.

Mobile voice service

This mode adjusts transmission power of base stations to set the transmission speed and speech quality at constant levels in accordance with the condition surrounding the mobile terminal.



First Meeting of “Promotion Conference on Quantum Communications Research” Held

Quantum communications is a communications technology utilizing quantum mechanical nature of photon or electron, which has potentialities to realize ultrahigh-speed or absolutely secure encrypted communications which are thought to be impossible with existing technology. Accordingly, it is essential that new technology be developed to realize quantum communications.

On May 28, 2001, MPHPT held the first meeting of the “Promotion Conference on Quantum Communications Research” (Chair: Dr. Leo ESAKI, President, Shibaura Institute of Technology)

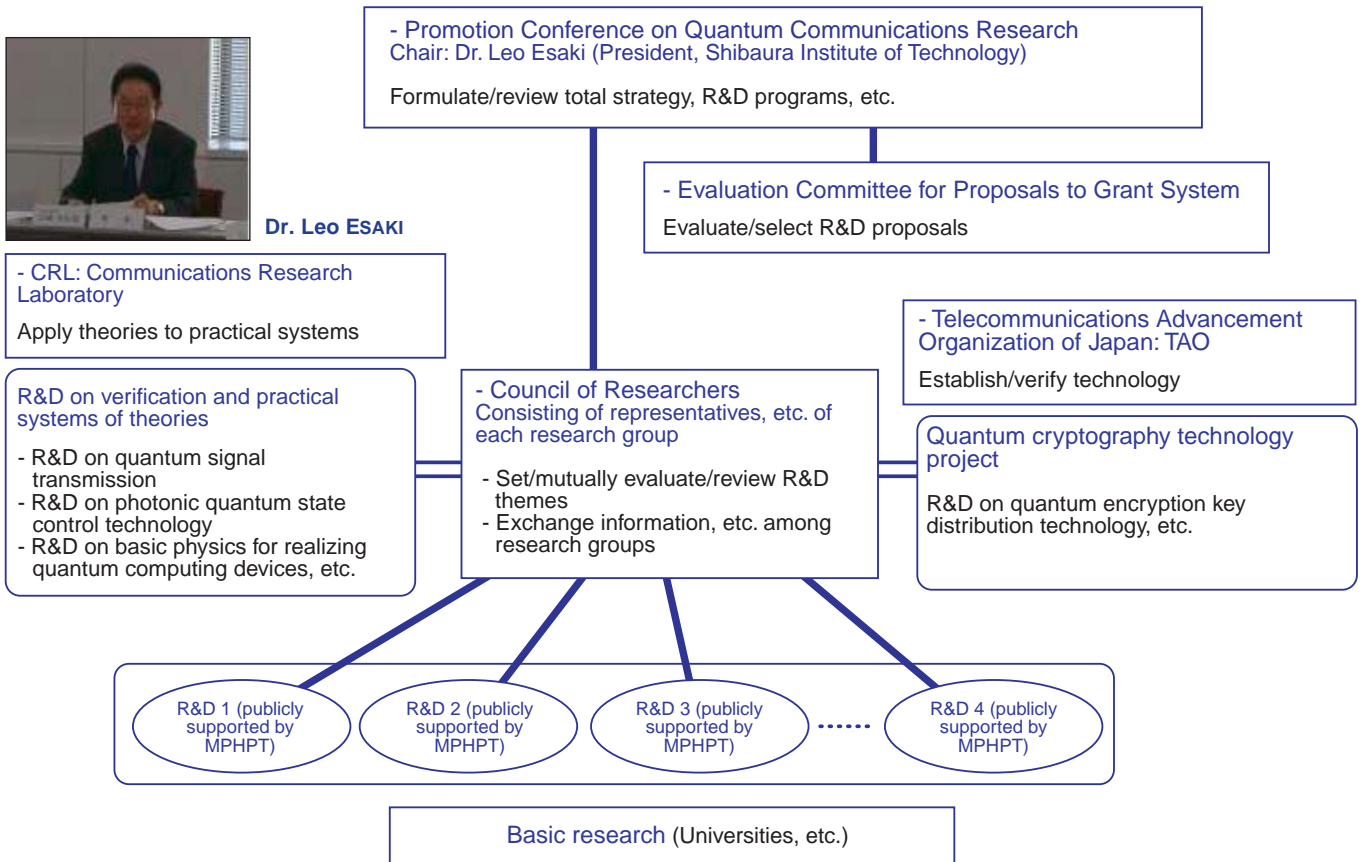
at the MPHPT headquarters. Dr. ESAKI is a Nobel Laureate in physics for the discovery of semiconductor tunnel effect. The conference was formed for encouraging industry-academia-government joint efforts to strategically and comprehensively promote a range of R&D from basic to verification levels.

At the first meeting, Minister Toranosuke KATAYAMA, Member of the House of Councilors, gave an opening address, stressing the importance of investments in R&D initiatives in the promising field such as quantum communications from a long-term perspective,

then, vigorous discussions on future R&D activities were conducted.

In addition to the promotion conference, MPHPT will promote integrated R&D on quantum communications technology, through the establishment of an R&D promotion scheme (See Fig.). Under the scheme, two organizations will be formed, namely, the “Evaluation Committee for Proposals to Grant System” to evaluate and select public R&D proposals for MPHPT grants, and the “Council of Researchers” to conduct information exchanges among research groups.

Fig. R&D scheme on quantum communications technology



Introduction of Broadband Mobile Access System Using Quasi-millimeter Band Frequency

-- Inquiry of the Telecommunications Council --

On May 28, 2001, MPHPT inquired of the Telecommunications Council (Chair: Mr. Yoshihisa Akiyama) about “technical conditions for broadband mobile access system using quasi-millimeter band frequency.”

The outline is as follows:

[Background]

As seen in the recent rapid expansion of mobile Internet access services, Internet use in a mobile environment is gaining popularity. Along with the speed-up of wire communications services, expectations for realization of a high-speed mobile Internet environment are growing. While use of the Internet is spreading along with the wider use of personal computers in offices and households, troublesome wiring and limited

space are becoming issues to be solved.

To date, after the introduction of wireless LANs using microwave or millimeter bands, wireless access environments for offices and households have been developed, but they have not satisfactorily met user demands in terms of transmission speed, etc.

The broadband access system using quasi-millimeter band frequency assumes an ultrahigh-speed high-quality mobile communications system in consideration of seamless interconnection with fiber-optic networks. Currently, R&D on home-link is being carried out in relevant organizations for realizing a mobile access system, high-speed high-quality wireless LANs at offices and households and a wireless home-link

system enabling wireless connection to information consumer electronics such as audio-visual equipment.

[Outline]

Taking such backgrounds into consideration, MPHPT inquired on technical conditions for broadband mobile access systems using quasi-millimeter band frequency.

Findings of the deliberation at the council will be compiled in around September 2001. MPHPT, paying due respect to the report, will prepare relevant ordinances, etc.

Note: “Quasi-millimeter band” refers to a frequency band between 10GHz and 30GHz.

Fig. Broadband mobile access system

