

(Press Release)

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Nippon Telegraph and Telephone Corp.  
Hoken Dohjinsha Co., Ltd.

## **NTT and Hoken Dohjinsha Begin Joint Tests of Optical Broadband Telework Support Services to Simplify Links between Counselors**

- Promoting HIKARI Market Creation through HIKARI Communication Collaboration  
Services -

Nippon Telegraph and Telephone Corp. (NTT; Head Office: Chiyoda-ku, Tokyo; President: Jun'ichiro Miyatsu) and Hoken Dohjinsha Inc. (Hoken Dohjinsha; Head Office: Chiyoda-ku, Tokyo; President: Hajime Onami), will carry out joint tests of a new support service designed to ensure smooth operations by health counselors employed in Telework<sup>(\*)</sup> operations. The tests will last for approximately six months, from mid-March to the end of August 2002.

In these joint tests, counselors conducting telephone health consultations from the Hoken Dohjinsha Head Office and branch offices and from home, as part of the company's 24-hour consultation service, will be connected using NTT's B Flets service. The system will enable counselors on duty to easily establish mutual contacts via a multi-location video conferencing system that takes advantage of the special features of Optical Broadband, and at the same time will keep track of the status of all counselors.

This system employs technologies that enable the user to automatically set up a two-person videoconference room simply by calling out the name of another counselor who he wants to ask for advice when he has a problem or question during the course of his own counseling work. The system picks up only the required voices even in noisy environments, allowing the user to obtain appropriate advice whenever it is needed. The goal of the upcoming tests is to evaluate and verify the performance of the system and various related technologies, with a view toward establishing "Telework Support Services for the Optical Broadband Era."

### **<Background to Joint Testing>**

Telework is a new working employment style that is not bound by the restrictions of time and location. A wide range of trials has been undertaken over the past ten years or more, but a number of issues have been identified as obstacles to the general acceptance of this approach. For example, managers have found it difficult to administer workers' activities, and worker evaluations have also been problematic. Optical broadband is expected to provide an effective means of resolving the various problems related to Telework.

Hoken Dohjinsha has been conducting telephone health consultation services since 1988 based on contracts with companies, health insurance associations, and mutual aid associations. The company has created a system that allows participation by public

health nurses working from home in addition to the counselors working out of the Hoken Dohjinsha head office and branch offices, enabling it to offer these telephone health consultation services on a 24 hour/day, 365 day/year basis. Its goal has always been to build upon its extensive experience in the field of telephone health consultation operations and to constantly improve the counseling environment in order to provide the most advanced telephone health consultation services possible.

NTT Laboratories, meanwhile, has been promoting the development of HIKARI Community Collaboration Services<sup>(\*)2</sup>, which take advantage of the unique features of optical broadband, including high speed and broad bandwidths, interactivity, and media integration.

Through a collaborative effort, these two companies will work to establish Telework Support Services for the optical broadband era, as a new form of communication service that will resolve the various problems faced in Telework operations. At the same time, they will endeavor to tie these efforts into NTT's ongoing HIKARI Market Creation activities<sup>(\*)3</sup>.

### <Outline of Joint Tests> [\(ref. Fig. 1\)](#)

The framework of the Telework Support Services is as follows: Counselors conducting telephone health consultations from the Hoken Dohjinsha Head Office and branch offices and from home will be connected via NTT's B Flets service. Using the "NetOfficeHIKARI" Multi-location Collaboration System<sup>(\*)4</sup>, the user can confirm the status of all counselors on duty at any given time, and can automatically set up a two-person videoconference room simply by calling out the name of another counselor when he has a problem or question. In this way, counselors can easily confer or share advice amongst themselves.

#### 1) Term of Implementation

Phase 1 (Mid-March to April)	Evaluation and verification of zone separation audio pick-up technology <sup>(*)5</sup> in actual work environments (Head Office, branch offices, homes)
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Phase 2 (May to late August)	Comprehensive evaluation and verification using "NetOfficeHIKARI" and incorporating zone separation audio pick-up technology and "VoiceRex" speech recognition technology <sup>(*)6</sup>
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#### 2) Test System [\(Ref. Fig. 2\)](#)

Hoken Dohjinsha's Head Office and branch offices and counselors' homes (in Tokyo, Osaka, and Nagoya) will be connected using "NetOfficeHIKARI." Conversations with persons seeking health counseling will be separated from conversations between counselors using a zone separation audio pick-up technology, "VoiceRex" speech recognition technology, and other methods, to ensure a work arrangement that does not hinder the flow of operations.

### <Goal of Joint Tests>

Among Hoken Dohjinsha's goals are: relieving the isolation that counselors feel when working late at night or at home, cultivating a sense of unity among counselors, keeping track of the status of counselors on duty from a managerial perspective, and providing support for counselors on duty.

NTT's main goals are to confirm the applicability of the "NetOfficeHIKARI" Multi-location Collaboration System, and the effectiveness of zone separation audio pick-up technology and the "VoiceRex" speech recognition technology. At the same time, by using optical network connections, it aims to create an environment that allows users in remote locations to feel as though they were in the same office.

### **<Plans for the Future>**

Optical broadband will make it possible to provide high-quality interactive communications through broadband environments, and to provide Telework Support Services using continuous connections.

In the future, the two companies will establish a Telework Support Service platform based on the evaluation and verification results derived through these tests, and will develop this platform to include not only telephone health consultations by all areas of the Telework industry. Based on these services, they will endeavor to create a more advanced home Telework environment, thus achieving richer and more effective telephone health consultation services.

### **<Explanation of Terms>**

#### **\*1: Telework**

Telework, which is also commonly known as "telecommuting," refers to work carried out at home or at a satellite office using phones, faxes, e-mail, and a variety of other telecommunication media.

#### **\*2: HIKARI Community Collaboration Services**

Expected applications for this service platform, which enables users to share a highly realistic virtual space and to carry out cooperative tasks, include medicine, social welfare, public affairs, and manufacturing.

#### **\*3: HIKARI Market Creation Activities**

NTT announced the start of HIKARI Market Creation Activities in November 2000. These activities are designed to open up new demand and create new markets related to optic technologies, by cooperating with industry partners to provide customers around the world with new information sharing services worthy of the era of optic technologies (taking full advantage of the unique characteristics of optic networks such as "high-speed, broadband environments," "interactivity," and "multi-media integration" (and by having users provide evaluations of these services. (<http://www.ntt.co.jp/news/news00e/0011/001128.html>).

#### **\*4: "NetOfficeHIKARI" Multi-location Collaboration System**

This is a broadband-based system designed to facilitate collaboration among persons in remote locations. In addition to high-quality video and audio communications among multiple locations, it enables sharing of materials and applications. The system can be accessed via PCs connected to the Internet or to intranets and accommodates NAT (Network Address Translation) and HTTP tunneling.

NetOfficeHIKARI can be provided as an ASP service, and can be implemented with a minimal initial investment. The system enables users to notify others of meetings via e-mail, and can be customized flexibly according to the required applications, for example through links to groupware. In addition to applications involving Telework, remotored conferencing, remote education, and remote presentations, the system can be

used to hold panel discussions with as many as 1,000 participants.

**\*5: Zone Separation Audio Pick-up Technology**

This audio technology picks up only the desired voices even in noisy environments. In a manner of speaking, it isolates the user's space with a virtual "audio curtain," thus making it possible to pick up only desired sounds selectively.

In these joint tests, this technology will be used as an audio pick-up method in offices, homes, and other noisy environments to enable counselors in remote locations connected by networks to contact one another using voice commands, thus creating a greater sense of unity among counselors.

**\*6: "VoiceRex" Speech Recognition Technology**

Speech recognition technologies enable computers to recognize language spoken by humans. Given that speech is our most basic and most familiar form of communication, speech recognition has gained attention as a promising technology for allowing anyone to easily access increasingly complex telecommunication services.

The current joint tests are an example of one potential application; when the user faces a computer and says the name of another party, the system recognizes the name and establishes a connection via a video phone. The NTT Laboratories have been involved in research and application of speech recognition technologies for many years, and have already developed practical speech recognition applications for telephone banking, voice portals, and other telephone-related services.

- [Fig. 1: Image of Telework Support Services](#)

- [Fig. 2: Test System Configuration](#)

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