Nippon Telegraph and Telephone Corporation NTT Broadband Initiative Inc. NTT DoCoMo, Inc.

# Development of a real-time video communication platform that enables interworking with 3G mobile communications (FOMA<sup>(R)</sup>) for the first time in the world

The NTT Group companies have adopted the "Vision for a new optical generation-Broadband leading to the world of resonant communication," announced last November, as the group's common concept. They are committed to making a resonant communication network environment with superior usability a reality, and to creating a broad variety of new and sophisticated services and business models. Three NTT Group companies, Nippon Telegraph and Telephone Corporation (hereafter referred to as NTT; headquartered in Chiyoda-ku, Tokyo; President: Norio Wada), NTT Broadband Initiative Inc. (hereafter referred to as NTT-BB; headquartered in Chiyoda-ku, Tokyo; President and CEO: Hidetoshi Shirakawa), and NTT DoCoMo, Inc. (hereafter referred to as NTT DoCoMo; headquartered in Chiyoda-ku, Tokyo; President and CEO: Keiji Tachikawa), have developed, for the first time in the world, a video communication platform conforming to international standards. The platform enables real-time bi-directional video communication between personal computers at home or in the office connected to a broadband network environment and FOMA handsets (See Note below) provided by NTT DoCoMo, and also between personal computers.

Prior to launching a commercial service, these companies will carry out trial services with both general and corporate users to verify business feasibility, user interfaces and other aspects.

# 1. History and objectives of developing the platform

As the number of broadband access users, utilizing FTTH, ADSL, etc., increases rapidly, there are growing demands for mobile video communication, high quality audio and video, and end-to-end communications backed by the presence function (see glossary).

The newly developed platform enables bi-directional communication between IP networks and the FOMA network. This form of communication had been difficult to achieve because of the differences in the bearer service and protocols used by these networks. In addition, this platform makes it possible to improve the quality of the communication between personal computers. It can dramatically expand the range of handsets with which communication is possible, and provides an environment for ubiquitous communication with anyone, anytime and anywhere.

The new environment for ubiquitous communication will allow the creation of new business opportunities, such as active and efficient collaboration within a corporation through face-to-face video communications, consulting services using connections between a personal computer and FOMA handsets, and mobile electronic commerce. For individuals and the general community, the ability to use a FOMA handset for these communications will make their communication simpler and more convenient.

## 2. Role of each company in the development of the platform

NTT Cyber Space Laboratories have developed the Instant Messenger, which enables real-time, high-quality, end-to-end video communication between a personal computer connected to an IP network and a FOMA handset and also between personal computers. (See Attachment)

NTT DoCoMo has developed bearer-service and protocol conversion functions between an IP network and the FOMA network. This conversion function achieves seamless, bi-directional communication between a personal computer and a FOMA handset by making the communication pass through an ISDN. (See Attachment) NTT-BB will build a trial service system by implementing NTT Laboratories' Instant Messenger and NTT DoCoMo's IP network-FOMA network conversion function on top of its platform that is used to provide a full-blown broadband service (BROBA), and by adding security and other functions.

The above-mentioned arrangement has made it possible to provide real-time, bidirectional video communication, using the Instant Messenger, between a personal computer and a FOMA handset for the first time in the world.

## 3. Provision of a trial service and future directions

NTT-BB will accept applications to participate in a trial from general and corporate users on its website from February 2003, and carry out a trial service for two month. It plans to accept seventy applications from general users and thirty applications from corporate users. All applicants are required to sign up for BROBA service in order to participate in this trial.

The objective of the trial service is to verify specific business models and the suitability of the system for a variety of applications. These applications include expert support of salespersons when making presentations to customers in remote locations, remote monitoring of distant construction sites from an office personal computer, remote monitoring of home from a distant place, video collaboration at a SOHO, and distance learning from home or a place outside campus that the student is visiting. After the trial service, the plan is to begin a commercial service across the country by September 2003.

Based on the results of the trial service, the companies will continue with development to further improve usability.

## (Note)

"FOMA handset" refers to a FOMA handset that supports the videophone function. \*FOMA is a trademark or registered trademark of NTT DoCoMo, Inc. in Japan and other countries.

# [Glossary]

## **Resonant communication**

The communication concept proposed in the "Vision for a new optical generation" in November 2002.

#### Presence function

The capacity to continuously monitor, manage and notify the status of the destination handset and the network, and the information about available services.

## IP network

A network that transfers data using the Internet Protocol (IP).

#### Bearer service

A service for which only the lower layers (layers 1 to 3) are defined, whereas handset functions and the higher layers (layers 4 to 7) are not defined.

#### Protocol

A set of rules for exchanging information between computers.

# Ubiquitous

Derived from the Latin word ubique, ubiquitous means to be everywhere at the same time.

## **Instant Messenger**

An application that checks whether the users of the same software on the Internet are online or not, and, if they are online, can initiate a chat or transfer files.

-Attachment: An overview of the end-to-end real-time video communication platform

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