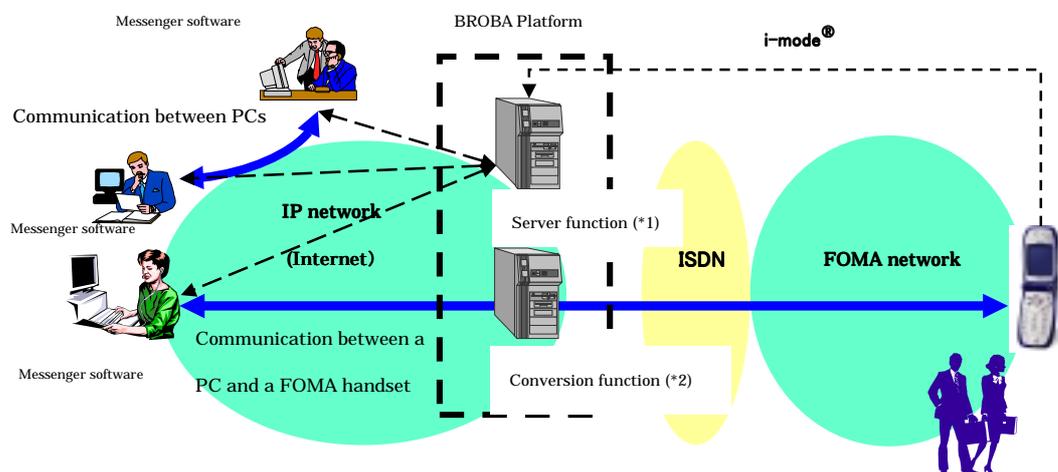


## Attachment : An overview of the end-to-end real-time video communication platform

### Network Configuration and Connection



(\*1) Server function for the NTT-developed Instant Messenger supporting FOMA.

It provides call connection, presence management and other functions.

(\*2) NTT DoCoMo-developed conversion function

This function provides the protocol conversion between H.323 on an IP network and 3G-324M adopted for the FOMA network, and a bearer service conversion. In addition, it manages handsets and controls communication to enable communication between an IP network and the FOMA network.

#### ① Instant Messenger that supports connection with FOMA handset

The existing Instant Messenger supports presence management and audio-visual communication only between the users of personal computers. Bi-directional communication between a personal computer and a mobile handset, such as a FOMA handset, has previously been impossible because of the differences in the protocols used and in the bearer services provided. The Instant Messenger newly developed by NTT permits this communication by implementing the SIP/H.323 dual protocol so that SIP is used for communication between personal computers, and H.323 for communication between a personal computer and a FOMA handset using the conversion function developed by NTT DoCoMo.

In addition, the new Instant Messenger implements the presence function to register and display the status (online/offline, etc.) of personal computer users. As a result, a FOMA user can download an "i-appli™" program developed also by NTT on his or her FOMA handset, and can register and display the presence and set up a video communication to a personal computer. Furthermore, high-quality audio-visual communication conforming to an international standard (MPEG-4, G.711) can be provided.

## ② Conversion between an IP network and the FOMA network

The conversion function newly developed by NTT DoCoMo allows conversion between 3G-324M (an audio-visual communication standard drawn up by 3GPP) adopted for FOMA handsets and the H.323 protocol adopted for TV phones on IP networks and also allows bearer service conversion by making the communication passes through an ISDN, therefore achieving real-time, bi-directional video communication. This function also manages handsets to identify the receiving party's handset and controls the communication bandwidth.

*\* i-mode is a trademark or registered trademark of NTT DoCoMo, Inc. in Japan and other countries.*

*\* i appli is a trademark of NTT DoCoMo, Inc. in Japan and other countries.*

### [Glossary]

#### ○H.323

A communication control protocol defining audio and video data compression and expansion systems for one-to-one exchange of audio and video data over the network, recommended by ITU-T (International Telecommunication Union - Telecommunication Standardization Sector).

#### ○SIP (Session Initiation Protocol)

A standard for audio and video data exchange. It is based on a communication control protocol that, unlike other similar protocols, provides functions that resemble those of a public telephone network, such as a forwarding function and an originating number notification function.

#### ○3G-324M

A communication control protocol drawn up by 3GPP for audio and video data exchange on videophones in the third generation mobile system.

#### ○MPEG-4

A high efficient audio-visual coding standard developed by ISO/IEC.

#### ○G.711

A telephone speech-encoding standard recommended by ITU-T (International Telecommunication Union - Telecommunication Standardization Sector)

#### ○3GPP

The 3<sup>rd</sup> Generation Partnership Project is a project to draw up standards for a third generation mobile system.