## Achieving a "Ubiquitous Communication Society"

Ichiro Morihara Executive Director of NTT West Research and Development Center

Since the establishment of NTT West on July 1st, 1999, its R&D Center has been developing technology necessary for providing various NTT West services. As part of our activities, we have been improving basic products from the NTT Labs. and increasing their usefulness. We have also been integrating market products and independently developing parts that need to be made.

These days, the word "ubiquitous" is being used in many situations to express the concept that people can do many things easily using information technology (IT) tools including computers, which exist in many places. In particular, mobile phone sales have been booming and information appliances providing IT functions are increasingly being used. IC (integrated circuit) cards and tags are also becoming more popular. We now take for granted broadband networks and wireless LANs (local area networks): we expect to be able to communicate with anyone, at any time, and in any place.

In November 2002, our holding company NTT described "resonant communication" in its "Vision for a New Optical Generation". As part of the NTT group, we can contribute to achieving a ubiquitous communication society by developing resonant communication services. We are focusing on researching and developing technology necessary for resonant communication: IP (Internet protocol) mobility, VoIP (voice over IP), image delivery, peer-to-peer networks, and security technologies. Before these technologies can be implemented, we need a high-speed, high-capacity, high-quality network.

NTT West is currently providing the following IP services:

- B FLET'S and FLET'S ADSL: access services for connecting to the Internet
- FLET'S Communication: communication services with images, sound, and text
- FLET'S SQUARE: a wide variety of high-quality contents delivered via FLET'S services

However, customers cannot always use the current IP network smoothly because these services are based on a best-effort network. Therefore, we should increase the network bandwidth, control the quality of services, and provide functions that enable easier connection to many IT terminals. We are developing a regional IPv6 (Internet protocol version 6) network, which will enable flexible quality control of the network for each service. This will let customers smoothly use a wide variety of services. Furthermore, we are adopting an IPv6 address scheme that can handle far more addresses for IT terminals. This will aid in achieving a true broadband network.

We would like to achieve a ubiquitous communication society at the earliest possible opportunity by developing services that are useful to customers.

Ichiro Monihara

