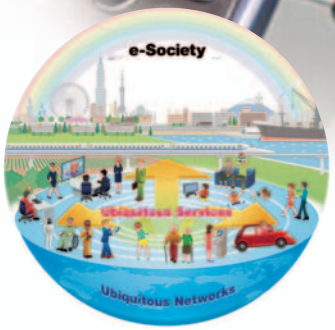
Toward the Realization of an e-Society

Creating solutions that bring about the development of an "e-Society", that is full of Ubiquitous Services



Bringing about an e-Society full of Ubiquitous Services that can be connected to whenever, wherever and with whatever. The OKI Group utilizes advanced IP technologies to create solutions, for mobile phones and other applications, that are helping to bring about the next generation of communication.

Osamu Nakazawa
President and Chief Executive Officer
OKI ACCESS Technologies

A ubiquitously networked society, as conceived by the OKI Group, is a world where services can be readily used in the desired style, securely and reliably, whenever, wherever and with whatever. The OKI Group refers to this world as the e-Society. To bring it about, we have developed a wide range of services based on info-telecom systems that utilize sophisticated IP technologies. We are also working to create new solutions, and to this end have established a joint venture to provide next-generation services for mobile terminals.

Expanding the Scope of Ubiquitous Services from Enterprises to Individuals

To help make this ubiquitously networked society a reality, the OKI Group has long been involved in the development of technologies and services that integrate information technology and telecommunications technology and for many years has provided IP telephony services that enable enterprises to completely switchover to IP-based communications—a "triple-play" of services that combine data, voice and video.

In order to make these services available to even more people, their scope needed to be expanded from enterprises to include individual consumers, and so OKI turned its focus to mobile phones.

Focusing on Next-Generation Solutions for Mobile Phones

Mobile phones are currently used by over 75% of the population in Japan*[1] and are becoming an indispensable tool for everyday communication. Making Ubiquitous Services available on mobile terminals has the potential to rapidly accelerate the emergence of the e-Society. At the same time, the telecommunications industry is constructing new infrastructure in the form of next-generation networks *[2]. Integrating OKI's IP voice and video technologies with mobile terminal platform technologies on these networks will enable the creation of diverse IP multimedia subsystem (IMS) solutions *[3].

Against this backdrop, OKI entered a technical alliance with ACCESS Co., Ltd., which has been early to develop IMS solutions and has captured a major share of the worldwide market for mobile terminal software, including browsers and mailers. In November 2005 we partnered with ACCESS to form a joint venture, OKI ACCESS Technologies (OAT). Furthermore, in order to more fully enhance the ubiquitous solutions provided by the OKI Group, including support for OAT, in April 2007 we established a new internal organization, the Ubiquitous Service Platform Company, or UPC.

Presence Function Expands Communication Possibilities

OAT has already launched a number of Ubiquitous Services, one of which is a presence function for mobile phones. This function lets callers know the status of the person they are calling beforehand; whether the person is "available," "in a meeting," or "out of the office," for example. This function saves people the trouble of having to call someone over and over and helps raise efficiency by allowing people busy with work to not have to answer their phone. The presence function also enables people to simultaneously convey their status and intentions in real time to everyone with whom they share their presence data. In this way presence has the potential to bring about new modes of communication.

Other popular services include "Push-to-talk," which allows a single person to converse with multiple people at the same time, and mobile broadcasting using eVideo, OKI's proprietary technology for sending lightweight video data at high speeds with minimal delay. OAT has also set its sights on its next step: linking with networked home appliances *[4]. The company is working to develop services that would allow home appliances to be operated from a remote location using a mobile phone as well as enable the transmission of picture, video, voice and other forms of data.

Strengthening Security to Accommodate Ever-Expanding IP Networks

With the development of next-generation networks, terminals that connect to IP networks through linking with networked appliances and other means are expected increase dramatically, as is the amount of information exchanged on those networks. The OKI Group therefore is placing utmost priority on strengthening security

to ensure information is exchanged safely and reliably. The group intends to improve security technology while utilizing OKI's proprietary biometric technologies.

*1 According to a survey by the Ministry of Internal Affairs and Communications. The rate was 75.7% as of March 31, 2007 (and 87.2% of mobile phone users have subscribed to IP connection services).

*2 Next-generation networks are telecommunications networks based on IP technology.

*3 IP multimedia subsystems consist of technology for bringing about new services that combine the Internet and mobile phones.

*4 Networked home appliances are appliances such as televisions, refrigerators and air conditioners equipped with communications functionality that enables them to connect to a network. They are sometimes referred to as "Internet appliances."

Partner Perspective

Michimasa Uematsu
Executive Officer
Engineering & Development Group
ACCESS Co., Ltd.

Establishing a joint venture with and forming a technical alliance with OKI has allowed us to start an application business in the new field of IMS and video services. There have also been unexpected synergies, like joint research and development on applications for mobile phones and networked appliances. By continuing to strengthen our alliance with OKI and OAT, we hope to create a cutting-edge software suite for mobile terminals and networked appliances.

Employee Perspective

Yuichiro Hiranuma
President
Ubiquitous Service Platform Company

OKI is working toward individualization by providing Ubiquitous Services that can be reliably used whenever and wherever by individual users. UPC was established to enhance platforms and engines to this end. Providing a service "triple-play" and strengthening security are currently the highest priorities at UPC. We are also presently considering the development of functionality that would allow various logs to be used in marketing activities as well as enhancements to internal collaboration and human interfaces. We fully expect that OAT will be able to develop these functions for use with mobile phones and networked appliances.

An OKI Group Ubiquitous Service

"eSound Positioning" Adds Directionality to Sound

Ken Sakamura, University of Tokyo professor and chairman of YRP Ubiquitous Networking Laboratory, explaining the field test

In February 2007, OKI added "eSound Positioning" functionality to its IP voice software, eSound Engine. The function adds directionality to sound using technology developed by OKI. The function makes it possible to clearly identify which direction somebody is talking from in situations in which multiple people are involved in a conversation, such as when teleconferencing or during simultaneous interpretation. It also enables navigation in which things are recognized intuitively depending on the direction of the sound.

eSound Positioning was included in the Ubiquitous Communicator *1 that was used as the dedicated mobile information terminal for a field test run by the Tokyo government and the Ministry of Land, Infrastructure and Transport for the "Tokyo Ubiquitous Plan: Ginza" *2.

*1 A mobile information terminal developed by YRP Ubiquitous Networking Laboratory

*2 A field test involving the use cutting-edge ubiquitous networking technology to provide information on Tokyo's Ginza district, including shopping and sightseeing information, and related services, such as navigation to a destination.

Wireless IP Phone System Covering All of the National Art Center, Tokyo

The National Art Center, Tokyo opened in the Roppongi district of Tokyo on January 2007. The center features a wireless IP phone system based on IP telephony servers from OKI and an IP-compatible, onsite PHS basestation.

The system makes it possible for the site's communications infrastructure to cover the entire center, including the enormous 14,000-m^2 exhibition space. Wherever staff members happened to be, they are able to communicate with one another, helping them to better accomodate visitors and expediting administration. Since it is an IP-based system, it can be scaled up in the future to handle applications that use not only voice but also text and video.