

Cloud-based Translator Phone

▶ Revolutionary Cloud-based, Smart-pipe Service



As Only a Smart Operator Can

Companies such as Apple and Google have been taking important steps to shift customers away from downloadable software and into the cloud to access digital content stored centrally for on-demand delivery via a Web interface. NTT DOCOMO, however, a so-called smart-pipe mobile operator that invests heavily in R&D, is strategically situated to develop and deliver a range of uniquely cloud-based mobile applications by leveraging its expertise as both a mobile platform provider and mobile technology developer.

Real-time Translator Phone

DOCOMO's ability to deliver highly valued-added smart-pipe services via the cloud is about to take on a whole new meaning when it launches an on-demand translator-phone service.

Using this unique mobile cloud service, a customer will simply speak into their phone and the other receiver will hear the message interpreted promptly into the language of their choice. Trials have shown that the average processing time takes just about two seconds, fast enough for a reasonably natural conversation under the most unnatural of conditions, i.e., two people conversing easily without understanding each other's language!

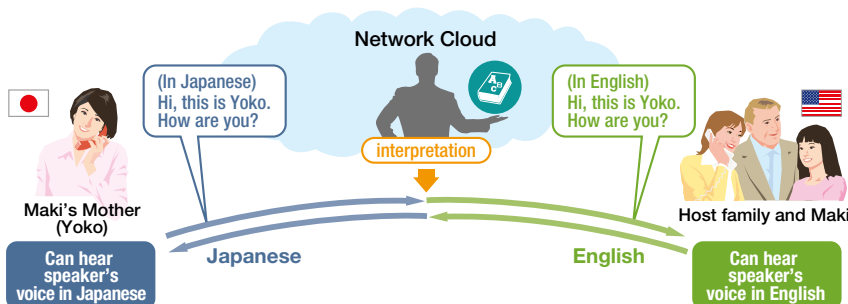
DOCOMO and some 400 monitors are testing the service in Japan now through March 2012. Tourist facilities, retail companies and hospitals also are participating. The trial system, which interprets Japanese and English, has about 90 percent accuracy in understanding what users say in Japanese. Accuracy for English is about 80 percent at present.

According to Hideharu Suzuki, a manager at DOCOMO's research and development center, "Since neither voice recognition nor interpretation is at 100%, we still want to improve accuracy. Nevertheless, we are already considering scenarios in which customers could accept a certain level of inaccuracy."

Suzuki hopes that someday the service will interpret conversations instantaneously, like in a science fiction movie. For now, however, DOCOMO intends to propose applications and observe how customers themselves apply mobile auto-interpretation in their daily and professional lives.

If all goes well, a commercial service will be offered to customers after fiscal 2012. Chinese and Korean services are already available to customers, and other languages will be introduced sequentially. Potential applications are envisioned in fields such as tourism, retail, health care and education.

How Translator Phone Works

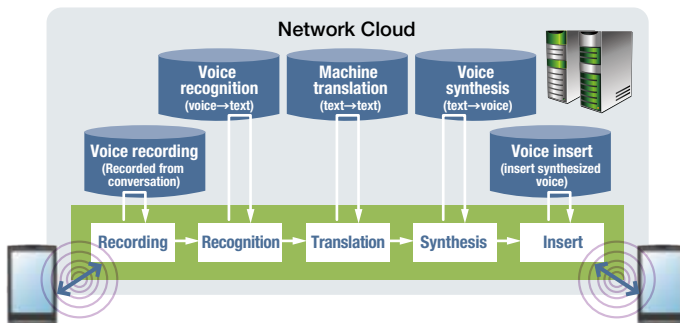


Packaged in a Cloud

The interpretation system is packaged in a cloud. It uses the cloud to integrate technologies for voice recognition, machine translation and voice synthesis, as well as mobile communication. Given the relatively limited processing power of mobile devices, the system leverages the cloud to connect to powerful interpretation machines and other server-based data-processing resources.

Systems for auto-interpretation and other mobile services will run on DOCOMO's personal-, business- and network-segmented "DOCOMO clouds." The extra added value of these sophisticated cloud-supported offerings will enable consumers and professionals to lead smarter lives. At the same time, the services and their incumbent mobile network clouds are seen becoming key sources of new growth for DOCOMO as the company solidifies its business base for long-term success and sustainability.

DOCOMO's Mobile Auto-Interpretation System



Just the Beginning

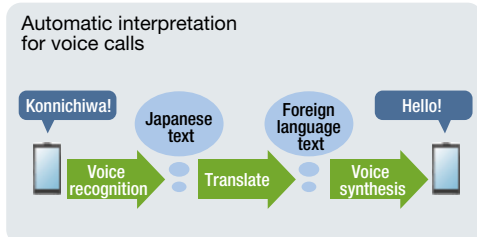
DOCOMO, an advanced developer of cloud systems integrated into mobile networks, expects to use the same basic network-cloud model to deliver many other rich mobile services.

A particularly handy service currently under development will enable users to have a cloud-based system monitor calls to listen for keywords. For example, in a phone conversation with a friend, spoken words such as "dinner," "restaurant" and "Italian" would trigger the system to automatically provide the user with a map of Italian restaurants nearby.

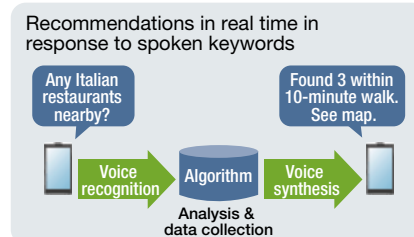
DOCOMO is collaborating with a growing number of partners in widely varying industries to develop these and other innovative services and applications for delivery via the cloud.

New Communication to be offered via Network Cloud

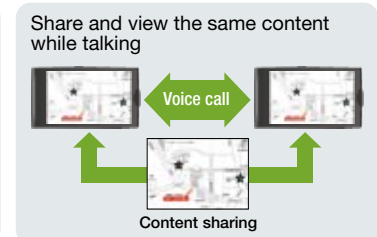
Mobile Interpretation



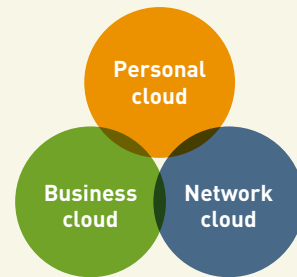
Mobile Assistance



Mobile Sharing



DOCOMO Clouds



Personal cloud

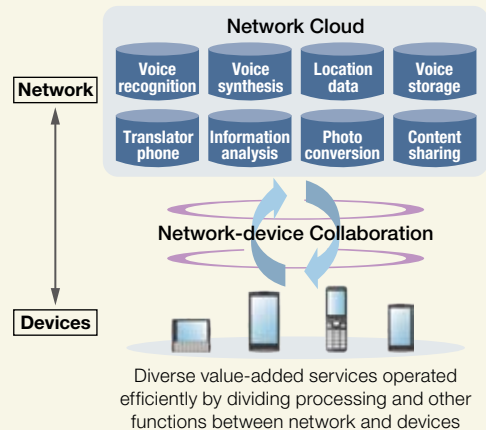
Platform underpinning wide range of services for consumers

Business cloud

Solutions platform or provision of new business styles

Network cloud

Platform that adds value through sophisticated information/communication processing performed on the network



Integrated Service Provider

DOCOMO, with its unique strengths as a carrier-based operator, will distinguish itself not only through the provision of exceptionally high-quality mobile networks, but also by developing and offering unprecedented cloud-based mobile services as a smart-pipe provider of integrated mobile services for smarter living.