

Broadband and our Network Style

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According to statistics compiled by the Ministry of Public Management, Home Affairs, Posts and Telecommunications in November 2003, there were 13.234 million broadband users in Japan at that time (DSL: 9.991 million; FTTH: 815,000; CATV: 2.428 million). At the end of December, DSL connections passed the 10 million mark for the first time (10.27 million). The penetration rate of broadband connections in Japanese households is 28%.

In keeping with this rapid popularization of broadband Internet, our lifestyles are also changing dramatically. In the past, we connected to the Internet only when it was necessary, but now we can start up our PC as soon as we get home, and the Internet is “always on.” Besides the broad bandwidth of these connections, constant access and flat-rate tariffs are also significant factors.

One example of this new usage style is a “dual-purpose screen” that provides both TV and PC functions. A user watching a TV program might open a PC window to search the Internet for extra details about something that appeared in the TV program. A user who finds the TV program uninteresting might utilize the screen for Internet access. In the case of digital TV broadcasts, additional information related to the TV program is transmitted to the receiver in the form of a data broadcast, and users can switch freely between the TV and PC functions depending on their requirements.

Recently, e-commerce and shopping services for making purchases on the Internet have begun in earnest. It has become quite common to make ticket and hotel reservations or to purchase airline tickets and other service products over the Internet. The purchasing activities themselves do not involve pamphlets and other physical advertising media; instead, the user generally searches for the least expensive product using price comparison sites on the Internet or by checking bulletin boards for personal evaluations of products to focus in on the desired item. Another common route is to find products on “auc-

tion sites,” where inexpensive items can be purchased in an enjoyable atmosphere.

Whenever broadband is discussed, there is a tendency to think about video content transmission, video conferencing, and other broadband applications, but actually services with practical merits such as information searches and purchasing support will become the true driving force behind broadband applications. These services are not provided in a fixed format, but are refined through repeated use to meet the needs of users.

The mission of the NTT Cyber Communications Laboratory Group is to create new services for the broadband era and develop technologies that will enable differentiation from existing services. Thus, besides developing video encryption and voice/audio processing etc., we must provide information processing technologies that allow intelligent searching for information and support the editing, summarizing, and tabulation of information. We collaborate with users to develop services that reflect their needs.

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