1 Background

There is the rapid penetration of not only PCs, but also mobile music players, digital broadcast-compatible TVs, and various digital devices such as HDD recorders in recent years. And the environment that facilitates the connection of these devices in a home network has steadily improved, resulting in more and more enjoyment of diverse digital content on a variety of devices.

In addition, the expansion of the population of FTTH subscriber households and public wireless LAN services is making it possible to enjoy and utilize digital contents not only in the home but also outside the home via the Internet.

This steady fulfillment of the promise of access and utilization of digital content, the deployment of broadband network infrastructure has given birth to new needs for the unified management of diverse digital content and their simple exploitation anytime and anywhere.

As typified by mobile PCs, the need for the capability to use PCs anytime and anywhere is also increasing in step with the widespread usage of the advantages of PCs.

The future advent of new telecommunications infrastructure such as NGN (Next Generation Network) and WiMAX and the increasing diversification and sophistication digital content and the ways that PCs are being used are expected to fuel further increases in these needs.

2 Mission of NEC Personal Products Ltd.

Since the dawn period of personal computing, NEC has been a driving force in the development of Japan’s PC market, introducing PC-8001 (launched in 1979), PC-9801 (launched in 1982) and other hit products.

Subsequently, NEC continued to tackle the development and commercialization of PCs that are always a step ahead of the changing trends, pioneering numerous new scenes where PCs played a vital role.

Also in non-PC area, NEC has leveraged technology and know-how honed in PC development and proposed e-mail “Mobile Gear” terminals, the AX series of home AV servers and other new solution ideas with PC connectivity.

As one aspect of these continuing endeavors, the Home Server and Home Client Solution “Lui” is a new solution from NEC Personal Products, Ltd. that will lead the way for the coming Ubiquitous Age.
“Lui” Concept and the New Technologies That Make It a Reality

“Life with Ubiquitous Integrated solutions”, true to its brand name that stands for, the “Lui” Home Server and Home Client Solution leaps ahead with new ways to use PCs and digital AV devices in a cutting-edge network environment, proposing an innovative digital lifestyle for the Ubiquitous Age with a home server PC at its core.

The “Lui” concept described in Fig. aims at creating a world in which diverse digital content and Internet services as well as PC functionality can be easily enjoyed anytime and anywhere.

A “home server PC” provides 1) unified management of digital camera photos, video, music and other digital content and enables access and enjoyment by existing PCs and network-capable (DLNA) TVs via the home network or Internet, and 2) remote utilization of PC functions on the home server by small, lightweight mobile “PC Remoter” clients via networks.

The former is “Contents on Demand” which enables enjoyment of digital contents whenever and wherever the user desires, while the latter function is termed “PC on Demand” which makes possible the usage of one’s home PC from anywhere and at anytime. Together these capabilities will open up new possibilities for PC utilization.

NEC Personal Products, Ltd. has developed three original technologies to make this concept a reality: “High Reliable Design” for extended and stable operation of the home server; “Multi Record Cast Technology”, which makes possible the recording and distribution of multichannel digital broadcasts simultaneously - one of the essential functions for “Contents on Demand”: and “Remote Screen Technology” for “PC on Demand”.

Through these new technologies, NEC Personal Products, Ltd. is offering usage opportunities previously not possible with existing technologies, enabling the company to leap head of other companies in manifesting this concept in products.

The Path to the Launch

Starting three years prior to the launch of “Lui”, NEC Personal Products, Ltd. pursued the creation of new solutions for the coming Ubiquitous Age in a project independent of existing PC projects, beginning with the creation of the “Lui” concept and then tackling the development of a platform of technologies that would make it possible.

For the product launch as well as to lead the way for understanding of an unprecedented concept, NEC adopted a step-by-step market launch approach that began with the technology announcement at CEATEC JAPAN 2007 in October 2007 and the unveiling of the product concept and new brand at iEXPO 2007 in December 2007, culminating in the announcement new product in April 2008.

As a result, the advanced features and originality of “Lui” enjoyed extensive coverage by the media at each announcement stage.

Future Development and Prospects

In the future, further networking of digital devices in the home and the deployment of wireless broadband networks will bring the world of Home Server and Home Client Solutions closer to becoming an intimate part of daily life.

While enabling the more complex and sophisticated usage of digital contents by the home server PC itself through compatibility with multichannel digital broadcasts and HiVision video content and through improved interconnectivity with diverse digital AV devices, NEC Personal Products, Ltd. also envisages the PC Remoter opening the way to a wide variation of new usage scenarios.

We continue to aggressively tackle ways to innovate and enrich digital lifestyles made possible by the evolution of the PC.

Outline of the Special Issue

Following this article, this special issue will introduce read-
ers to an overview of the “Lui” Home Server and Home Client Solution products and core technologies.

In the product overview, there will be a summary of the first series of products and an introduction of new usage scenarios that will be made possible by “Lui”. In addition, the technological overview will explain the features of the three new originally developed technologies that have realized “Contents on Demand” and “PC on Demand” in detail.