Outline of the Home Server and Home Client Solution "Lui"

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Abstract

NEC Personal Products Ltd. launched their new personal solution products in April, 2008. These were the "Lui SX" home server PC, the "Lui RN" "Lui RP" PC Remoter and the "VALUESTAR R Lui" consumer desktop PC. These products realize new solutions named "Contents on Demand", "PC on Demand".

Keywords

1. Introduction

The first products of the "Lui" series that realize the "Home Server and Home Client Solution" were launched in April 2008.

- A home server PC "Lui SX" that realizes "Contents on Demand" and "PC on Demand" which are the basic concepts of the "Lui" series.
- PC Remoters "Lui RN" and "Lui RP" that are special terminals for "PC on Demand".
- A consumer desktop model PC "VALUESTAR R Lui" that realizes "PC on Demand".

This paper outlines the "Lui" products and the "Contents on Demand" and "PC on Demand" innovative digital lifestyle concepts.

2. Outline of the Products

2.1 The "Lui SX" Home Server PC

The "Lui SX" (**Photo 1**) is a home server PC that allows users to enjoy digital contents and PCs with easy operations anywhere and at anytime. The PC section and HDD recorder section work separately, so that heavy applications like a video editing application may be comfortably operated even during the recording of a TV program. A large capacity hard disk of 1TB (high-end model), for recording and two terrestrial digital high-definition TV tuners are mounted. This allows users to record two different channels of TV programs simultaneously and two recorded programs can be distributed at the same

Photo 1   Home server PC "Lui SX".

time. In addition when the "Lui SX" home server PC is connected to a large-screen TV via HDMI, it can be enjoyed as a living room PC. Moreover, it can be operated remotely from a PC Remoter, so that users can enjoy digital contents or set program recording from outside their home using the PC Remoter almost as though they were actually using the home server PC in their own home.

2.2 The "Lui RN" and "Lui RP" PC Remoters

The PC Remoter is a special terminal designed to remotely operate the "Lui SX" home server PC or the "VALUESTAR R Lui" consumer desktop PC. Two types of products are available depending on the purpose and the style of use.

The "Lui RN" is a light weight, easy to carry and easy to operate notebook type remote terminal. It has a weight of 649kg and a thickness of 15.8mm without compromising the requisite standard for a surface pressure resistance of 190Kgf. It features a high definition wide LCD screen (1,280 × 768 pix-

els) and a comfortable keyboard (17mm pitch), which provides similar operability to a mobile notebook PC. Built-in wireless LAN is mounted to enable connection to a home network or a public wireless LAN environment. A wired LAN interface is also installed for use if the user stays at a hotel equipped with broadband. The battery life has a maximum of 4.6 hours, even if it is connected via remote wireless LAN, a feature that enables long hours of operation.

The "Lui RP" is a pocket type remote terminal with a palm-size slide type LCD screen. It is an ultra compact terminal with a weight of 249g and a thickness of 22mm that features impressive ease of operation. It mounts a 4.1" (WVGA) LCD screen with a touch panel function 59 QWERTY keyboard, besides useful assist functions that enhance the ease of operation of Windows applications. The battery life is 5.4 hours maximum (**Photo 2**).

2.3 The PC "VALUESTAR R Lui" Consumer Desktop Models

The "VALUESTAR R Lui" model is a slim tower type desktop PC. They feature a 19" wide LCD screen, a high
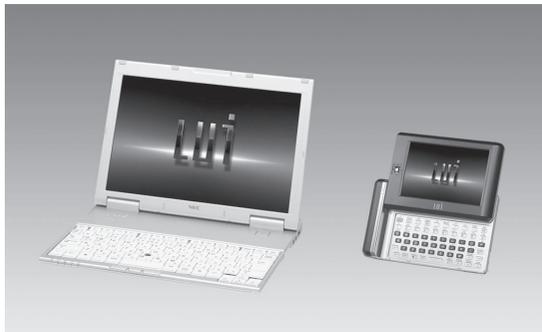
Photo 2　PC Remoter "Lui RN" (left), "Lui RP" (right).

Photo 3　"VALUESTAR R Lui" model.

performance external graphics board and integrated software to implement "PC on Demand" functions. They also feature a built-in PC Remoter server board designed to be linked with a PC Remoter, which allows a user to control a PC remotely just by adding a PC Remoter (optional). The high-end model of the "VALUESTAR R Lui" employs an Intel CPU, Intel ® Core™ 2 Quad. By using a palm-size PC Remoter, a user may operate various applications on this model without degrading the performance of the CPU (**Photo 3**).

3. Two Concepts to Create Innovative Usage Scenarios

"Contents on Demand" and "PC on Demand": these two concepts will realize innovative PC usage scenarios.

3.1 Features of "Contents on Demand"

With the concept of "Contents on Demand", the home server PC enables unified management of various digital contents (music, photos, personal video movies, etc.). Beside these digital contents, users may enjoy Internet video and PC applications on a large-screen TV in a living room. Moreover, it is possible to record and distribute two digital TV programs simultaneously. Consequently, users can enjoy recorded broadcast programs on a PC connected with a home network or a network (Digital Living Network Alliance: DLNA) capable TV, while recording digital TV program on the home server PC (**Fig. 1**).
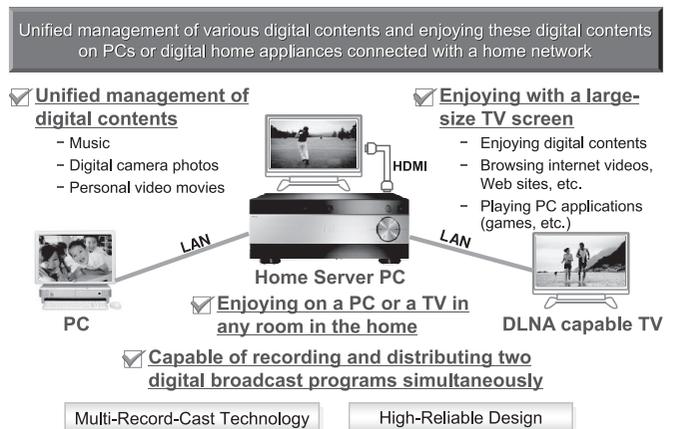

Fig. 1　Outline of "Contents on Demand".
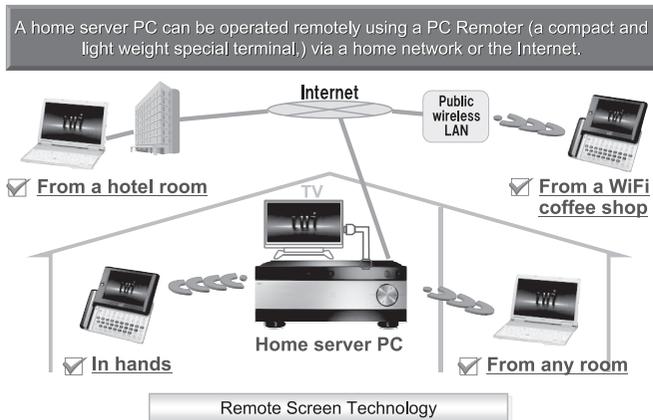
Fig. 2   Outline of "PC on Demand".

3.2 Features of "PC on Demand"

With the concept of "PC on Demand", the home server PC can also be operated remotely with a PC Remoter via a home network from any room in a home or via the Internet from outside the home. A PC Remoter allows users to operate PCs that are in a house or office etc. almost as though they were using the actual home server PC by sitting in front of it. As for the data security issue, even if the terminal is lost, the data leakage risk is very low, because all data is stored on the home server PC. Users can carry the PC Remoter without being concerned about data security (**Fig. 2**).

4. Usage Scenarios

4.1 Usage Scenarios of "Contents on Demand"

The following usage scenarios will be available by implementing "Contents on Demand":
- While a user is enjoying a drama program distributed via Internet streaming on a home server PC in a living room, his/her family can also enjoy a program recorded in a home server PC on a network (DLNA) capable TV in their own room (**Fig. 3**).
- Even if a father and a son want to record different programs on a home server PC in a living room that start in the same time, these two programs can both be recorded simultaneously. In addition, even during the recording of such programs, they can enjoy the recorded programs in their own rooms or edit other videos on the PC.

- A wide variety of data such as digital camera photos, music, digital TV programs, can be managed with a home server PC, so that users can search a desired content easily with a single remote controller and enjoy the content with their family. Users will be freed from the time wasting task of searching data storage locations.
A family trip plan using Internet Web sites, powerful PC games, blu-ray high-definition video programs, etc.; users can make or enjoy all of these on a large-size TV screen with their families in a living room.

4.2 Usage Scenarios of "PC on Demand"

The following usage scenarios will be available by implementing "PC on Demand":
- While a user is watching a TV program on a home server PC in a living room, he/she can check the program information on the Internet by operating the home server PC with a PC Remoter.
- While a user is in a bed room or study, he/she can reserve digital TV programs with operating the home server
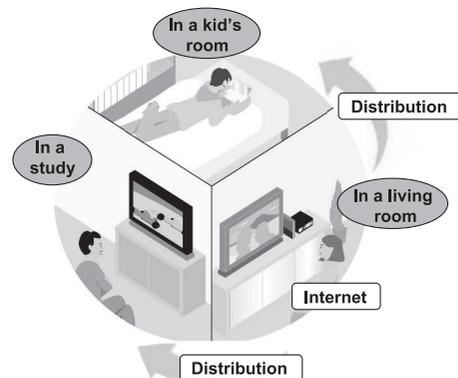

Fig. 3   Usage scenarios at home.
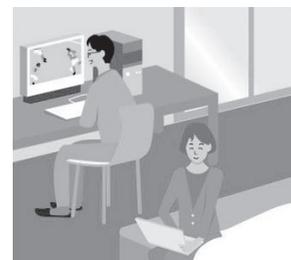
Fig. 4   Program reservation can be performed from anywhere in a house.
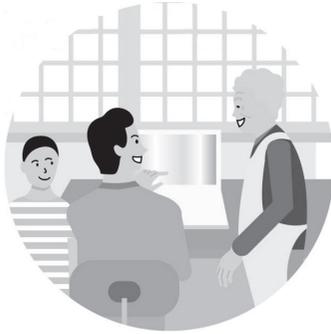
Fig. 5   A usage scenario at a user's parents' house.

Fig. 6   A cafe usage scenario.

PC in a living room (**Fig. 4**).

● When a user visits his/her parents house, he/she can show his/her family digital camera photos or videos stored in the home server PC at his/her own house (**Fig. 5**).

● While a user is in a cafe, he/she can check emails sent to the home server PC at home and also can edit files attached to such emails (**Fig. 6**).

● While a user is outside with a digital camera, he/she can send photos to the home server PC at home via Internet, and can also edit the stored digital camera photos in order to upload them to his/her blog site.

● While a user is out and about, he/she can check on his/her pets that are left at home, so that he/she can continue their activities free from anxiety.

● While a user is on a business trip, he/she can enjoy music or a personal video movie stored in the home server PC via a hotel LAN service. Moreover, a user can even edit video in the home server PC using high performance of the home server PC.

● Even when a user uses business applications, he/she can work at any location by installing such applications in the home server PC with a PC Remoter.

5. Conclusion

This paper introduced three products that enable the "Home Server and Home Client Solution" together with two innovative concepts, "Contents on Demand" and "PC on Demand". We believe that the "Home Server and Home Client Solution" will spread the new PC usage in the coming Ubiquitous Age.

The technical details of "Contents on Demand" and "PC on Demand" will be explained in the following sections.

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