

Notebook PC technologies

March, 2008

Abstract

We are developing platform technologies for notebook PC that can be used anytime, anywhere, comfortably and securely. Our research have been done in the following three domains:

- (1) Power-saving technology to enable users to use all day long without worrying about the remaining battery
- (2) Wireless interface implementation technology for on-demand comfortable Internet access
- (3) Trusted platform technology to prevent data from leaking, and to be relieved to use PC

Technology

- In the power-saving technology, all components are considered from semiconductor devices such as processors to power supply circuits, disk storage units, and liquid crystal display panels for the PC design. Optimum control method of performance/operating time matched to the user preference, and the circuit miniaturization technologies to make a small footprint have been developed. UMPC(Ultra Mobile PC) LOOX-U series is one of the products where these technologies are condensed.
- In the wireless technology, technologies for the low noise PC board and the best antenna integration to enable efficient and high-quality communication have been developed. The notebook PC equipped with UMTS (Universal Mobile Telecommunications System; 3G cellular phone system of Europe) for Europe, and the one with wireless WAN function for Docomo's FOMA HIGH-SPEED are commercialized by these technologies.
- In the trusted platform technology, a mechanism to protect the data from computer virus and to prevent the data leakage from theft and leaving behind have been developed and studied. We shipped a TPM(Trusted Platform Module) equipped notebook PC in 2004 firstly in Japan. The TPM protects secret keys from computer virus and detects securely an illegal change in the PC. The technology development have being done now.

Application Examples

Technologies from our R&D labs are implemented in the following:

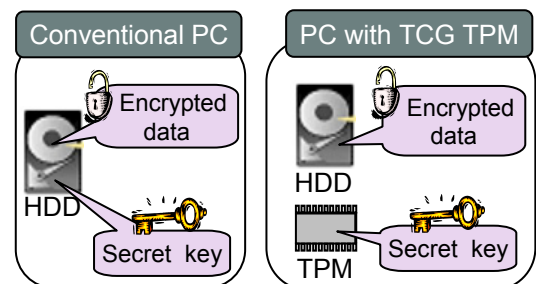
- New style ultra mobility notebook LOOX-U series
http://www.fmworld.net/product/hard/pcpm0712/biblo_loox/lu/ (in Japanese)
- Business mobile LOOX-R that is light, strong, and cool.
http://www.fmworld.net/product/hard/pcpm0712/biblo_loox/lr/ (in Japanese)
- [PRESS INFORMATION February 28, 2006] The executive special: the Fujitsu Siemens Computers LIFEBOOK Q2010
http://ts.fujitsu.com/ps2/press/read/news_details.aspx?id=1981
- [PRESS RELEASE February 22, 2008] FMV-BIBLO LOOX R series that can be connected with HIGH-SPEED communication -It is selling it on the "Fujitsu WEB MART"-
<http://pr.fujitsu.com/jp/news/2008/02/22-1.html> (in Japanese)
- [PRESS RELEASE April 12, 2005] The lineup of corporate notebook computer "FMV-LIFEBOOK series" was completely changed -Security is greatly strengthened with all models-
<http://pr.fujitsu.com/jp/news/2005/04/12-1.html> (in Japanese)



FMV-BIBLO LOOX U50XN
(Sep/2007, The world's smallest convertible type PC, 555g in the lightest composition)



FMV-BIBLO LOOX R70 Y
(Jan/2008, 11.7 hours operation, FOMA HIGH-SPEED is built-in)



TCG PC securely manages the secret key by TPM. The conventional PC doesn't.