

Latest Intel® Xeon® Processor 5500 Series Adopted for Japanese Cloud Computing Service Designed to Meet Local Needs

With the aim of being “number one in customer satisfaction”, KDDI Corporation operates high-quality services with convenient features that meet the expectations of modern customers. Based on this consistent principle, KDDI introduced the KDDI Cloud Server Service in June 2009. The service has been recognized as the first cloud computing solution to be provided by a Japanese company for Japanese companies. The service runs on servers that use the latest Intel processor, the Intel® Xeon® Processor 5500 Series.



KDDI Corporation

Headquarters: Garden Air Tower, 3-10-10

Iidabashi, Chiyoda-ku, Tokyo

Established: June 1, 1984

Capital: 141,851,000,000 yen

Business: Telecommunications operator

Business activities:

- au Keitai (mobile phones)
- Content service
- Broadband service
- Internet service provider (ISP)
- Telephone service
- Cable TV and associated services
- Enterprise solutions

<http://www.kddi.com/>

Issues

- Offer a highly reliable cloud computing service from a Japanese company
- Secure profitability by increasing density of virtualization and server rack mounting
- Aim to establish a comprehensive outsourcing business from the standpoint of a telecommunications carrier

Solution

- Intel® Xeon® Processor 5500 Series

Need for a Domestic-Based Service that Meets the Shift in Needs “from Ownership to Use”

In response to the shift “from ownership to use” that is evident in modern-day corporate requirements for IT resources, KDDI has introduced the KDDI Cloud Server Service. Noboru Minami, Group Leader of the Head of Platform Security section in the Solution Product Planning Department of the Solution Product Planning Sector at KDDI, describes the impetus behind the new service as follows.

“For all that corporate requirements have been shifting from the ownership to the use of IT resources, there have been virtually no examples of domestic suppliers of these services. This is despite the fact that the underlying technology for supporting cloud computing has matured and is no longer something new. At KDDI, we have taken advantage of our position as a telecommunications carrier to investigate offering such a service based on our knowledge of the associated hardware and software built up through careful verification testing.”

The underlying technologies such as virtualization that form the core of cloud computing have matured rapidly over recent years and services that started out mainly from a United States base are now increasingly growing into global operations. However, for Japanese companies that require more robust and secure systems, numerous obstacles stand in the way of establishing cloud computing as a business.

With the aim of establishing a profitable basis for a “cloud computing service by a Japanese company for Japanese companies”, KDDI identified the density of virtual machines (VMs) able to be integrated on each server using virtualization and the density of servers able to be mounted on each rack as performance indices and set out to meet the challenge of increasing both of these. The conclusion the company reached after carrying out extensive testing was to adopt servers fitted with the latest Intel® Xeon® Processor 5500 Series.

The Intel® Xeon® Processor 5500 Series are multi-core processors with excellent performance and power efficiency. The processor series reduces operating costs and delivers a dramatic boost in the efficiency of IT infrastructure, including best-in-class performance for operation in data center virtualization environments. By adopting

this technology, KDDI has introduced a “service that takes care of all the concerns that Japanese companies have about utilizing a cloud computing service”. This service takes the form of a domestically based data center that complies with the Information Security Management System (ISMS) standard and features comprehensive physical redundancy, a 24-hour, 365-days-a-year support structure, and a simple monthly billing system.

Transparent Service Outline with Operation Supported by Intel Technology

With enhanced data center functionality and features that help keep down the total number of servers required, the Intel® Xeon® Processor 5500 Series had a significant background role in making this Japanese-style cloud computing service a reality. Because it incorporates Intel® Virtualization Technology and numerous other innovative technologies, the Intel® Xeon® Processor 5500 Series achieves dramatically enhanced performance that significantly improves the density of virtual machine (VM) integration. The advanced power management functions including Intel® Intelligent Power Technology reduce mean power consumption and heat generation. As a result, the number of servers able to be mounted per rack can be raised to a level that provides a basis for profitable operation and would be difficult to achieve using existing rack standards. In practice, testing by KDDI has demonstrated that servers fitted with the latest Intel® Xeon® Processor 5500 Series allow mounting densities to be approximately 40 percent higher than with previous servers.

Many customers have chosen to sign up for the service once they have had the server hardware specifications explained to them, a consequence of their high level of faith and confidence in the latest Intel processors. The selection of the top-of-the-line Intel® Xeon® Processor X5570 emphasizes to customers that sufficient computing power will be available to them and they will be able to take maximum advantage of the efficiencies provided by a virtualization environment. These provide a strong underpinning for plans to put the service into commercial operation. Assistant Manager Ryoya Yanagi, also of the Solution Product Planning Department at KDDI, explains the choice of the latest processors as follows.

“Naturally, servers that use older processors have a shorter maintenance period and heat generation

problems mean a lower rack mounting density. This significantly reduces profitability. We came to the conclusion that, even if the initial cost was higher, using the latest processors would provide a superior return on investment (ROI) over the long term."

Plans to Expand Business Scope by Providing a Distinctively Japanese Service Supported by the Latest Technology

KDDI's aim for the future is to offer a total outsourcing service for customer systems. The company intends to offer a cloud server service by no later than mid-2010 that utilizes its strengths as a telecommunications carrier to make it easy for corporate customers to extend their intranets outside the company through the use of KDDI's dedicated lines. It is anticipated that this will expand the scope of the company's business by dramatically extending the range of corporate systems that have the potential to be outsourced.

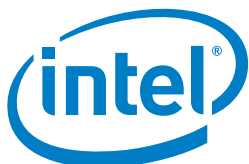
"In the past, we have not been contacted directly by customers looking into the possibilities of system outsourcing. But with the commencement of this service, the concept of cloud computing has been the cue that has seen us starting to field enquiries from numerous different quarters," observes Mr. Minami.

Gaining impetus from cloud computing, KDDI's outsourcing business is starting to show signs of solid growth. The Intel® Xeon® Processor 5500 Series that makes this service possible has also resolved issues relating to technology and the profitability of future business growth while reducing total cost of ownership (TCO) of the data center and improving return on investment.

"Choosing the latest processors was essential to expanding our outsourcing business and that approach will not change in the future," notes Mr. Yanagi.

Intel will continue to supply advanced technology that provides proactive support for the corporate strategies of its customers as they build their futures.

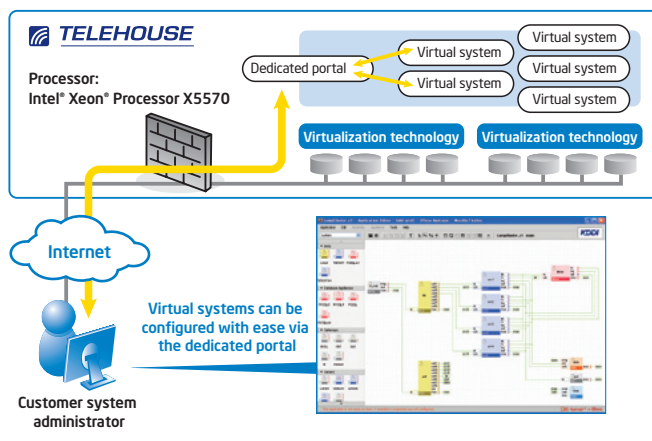
For more information about the Intel® Xeon® Processor 5500 Series, please visit the following site.
<http://www.intel.co.jp/jp/go/xeon/>



Reasons for choice

- Significant cost savings on implementing IT infrastructure resulting from the dramatic performance improvements of the Intel® Xeon® Processor 5500 Series
- Expansion in scope of outsourcing business through greater integration of virtual servers
- Use of the latest Intel processors inspires trust and confidence amongst customers

Conceptual overview of the KDDI Cloud Server Service consisting of servers fitted with the Intel® Xeon® Processor 5500 Series



※ For enquiries about the KDDI Cloud Server Service:
 Corporate Customer Center, KDDI Corporation
 Toll-free: 0077-7007 (free) or 0120-921-919 (free)
 Operating hours: 9:00 to 19:00 weekdays (excluding Saturday, Sunday and public holidays)



Noboru Minami
 Group Leader
 Head of Platform Security
 section
 Solution Product Planning
 Department
 Solution Product Planning
 Sector



Ryoya Yanagi
 Assistant Manager
 Platform Security section
 Solution Product Planning
 Department
 Solution Product Planning
 Sector

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