

Supermicro[®] Provides the Highest Reliability Servers in Yahoo! JAPAN Data Centers



From the Right: Mr. Norifumi Matsuya, VP, Infrastructure Engineering, Yahoo JAPAN;
Ms. Sonran Tei, Purchasing Administration Division, Yahoo JAPAN;
Mr. Tomohiro Kimura, Infrastructure Engineering, Yahoo JAPAN

Yahoo Japan Corporation (YJP) adopts new server technology in their data centers regularly. Recent trends show the adoption ratio of Supermicro servers as compared to many other vendors is increasing at a significant rate. Here are the top reasons discovered for such an increase.

- *In YJP's rigorous selection process, Supermicro servers pass all tests with outstanding performance.*
- *YJP can find the perfect, optimized solution to meet any specification requirement from Supermicro's extensive and diverse product line.*
- *Supermicro solutions have the lowest failure rate among all our vendors.*
- *With local distributor and support, U.S. based Supermicro is able to provide YJP with peace of mind operations.*

Implementation Background



“... we have been adding new servers periodically...”
(Mr. Matsuya)

Not many servers on the market can fulfill all of YJP’s Requirements. YJP owns tens of thousands of servers at their data centers.

Diversity of media devices across vast services and increasing demand for rich content due to widespread smart phones usage is driving the growing need for more and more server installations. It is a must that YJP has the most flexible and quick deployment of server solutions to cope with such evolving complexity.

“Requests to extend current server resources come up all the time from our own 2,000 engineers. In order to support their requests in a flexible and efficient manner, we have been building up our virtual environment aggressively. Virtualization has been implemented on most of the servers used by R&D, and now we are focusing on virtualization of the service side. However, we have been adding new servers periodically as we don’t have enough resources in our physical servers”, said Mr. Matsuya.

Under these circumstances, Mr. Kimura, who is responsible for system selection raises the concern that YJP’s functionality requirements are too complex for most systems.

“For example, recently, many companies adopted blade type servers, but for us, we have been using high density rackmount servers based on our considerations of cooling and earthquake-proof performance as well as power supply capacity and high flexibility,” said Mr. Kimura. “In our selection decision, cost and performance are important factors, as are reliability, quality and high efficiency. However, that said, there are not many server products that can meet our requirements as many of them have unnecessary functions that cause a high price or cannot accommodate small changes to specifications for fine tuning and optimization.”

Implementation Requirement



“At server selection meetings, we consider many requirements to select which server to implement” (Mr. Kimura)

To optimize the entire server infrastructure, strict requirement criteria is defined to select the right system to implement.

YJP has a unified selection process in order to efficiently and cost-effectively implement a vast number of servers. Because of this, server selection meetings are held quarterly with engineering and the purchasing departments.

At the server selection meeting, YJP considers the following criteria in addition to the service and purpose of the application:

- Specification of CPU, Memory, HDD, etc.
- Price
- Power Consumption
- Dimension
- Supported OS and their Versions
- Delivery Time and Supply Capacity

“We consider requests from the people actually using the servers, but we don’t take any individual requests on a model number or a preferred vendor. Technically speaking, the key is whether the product is well suited to build out YJP’s server infrastructure. Among the functional requirements, the most important point is the OS support. Our data center is not only operating the latest OS platforms, but also supporting current or OS versions from the past. Therefore, we cannot simply implement a system even if it clears all the other requirements. OS support is a critical part of the selection process”, said Mr. Kimura. “Server dimensions also play an important role as they must be able to mount in our data center racks. Front-to-back airflow compatibility is a design requirement. Another detail to consider is whether the rails need screws to secure onto the racks. Quick release rails are preferred to make rack modifications as efficient as possible.”

Selection Reasoning



**“Having SoftBank Technology as a service partner, I can purchase Supermicro products without any worries.”
(Ms. Tei)**

Having SoftBank technology as a service partner, the purchase of Supermicro products is worry-free!

“For our department, delivery time and supply capacity are the real keys!!! If we cannot get the system delivered on the set delivery date, it will impact the project schedule as well as our service. As a Purchase Manager, I believe a thorough check of the vendor and the distributor’s delivery and supply management structure is most important to avoid negative impacts to our schedule,” said Ms. Tei.

Nowadays, there are only a select amount of vendors providing good server products, so a high percentage of purchases are from three top vendors. However, now that we have a local Japanese sales partner, Mr. Matsuya explains that he started to take Supermicro products into consideration.

“I had a strong interest in Supermicro servers as they have been widely accepted by USA Yahoo! and other USA and Europe data centers as well as service providers and enterprises. They are not only cost effective when compared to the top three companies, but also offer high density and high power efficiency as well as the capability to provide tailor made servers that suit our complex specifications. If they can match our

specification requirements, I always want to think positively to implement their servers,” said Mr. Matsuya.

After initial evaluation, YJP was satisfied with Supermicro’s specification, cost and track records. The only remaining concerns were with some OS installations that did not operate as expected and some uneasiness of the supply chain from an overseas vendor.

“Regarding these concerns, the vendor side was fast to respond with BIOS upgrades as issues were reported. From this experience we understood their speedy response and advanced support skills,” said Mr. Kimura.

“On supply side, we’ve made a decision to have SoftBank Technology as the distribution channels thus eliminating potential problems. Being a purchase manager, it is always a comfort working with our existing partner, SoftBank Technology, as they understand our operations processes. With this relationship, there is no worry of import processes when dealing with overseas vendors,” said Ms. Tei.

Performance and Result

Extremely low failure rate and high reliability of the system enables the reduction of TCO.

After implementation, Supermicro servers continue to run very smoothly without major problems. Engineers give Supermicro very high recommendations and their product has been the candidate at the server selection meetings.

“Low implementation cost plus customized models for YJP made the Supermicro server installation rate soar within a one year time frame. Moreover, compared to the other vendors, Supermicro has the lowest failure rate which indicates the highest reliability of the entire system. Such advantages shrink the demands of spare parts and storage space, together contributing a great deal to the savings of operations costs,” said Mr. Kimura.

Mr. Matsuya expects Supermicro is not only a good server provider but also a dependable business partner to YJP from now on.

“I’m also highly appreciative of Supermicro’s participation in the construction of Japan’s earthquake recovery site, Shinsai portal (<http://shinsai.yahoo.co.jp/>). The site has been an important social contribution to our country,” said Mr. Matsuya.

“We are now developing a battery enabled server with which the server can remain operational for a limited time when the outside power source is cut off. We don’t know how much demand that system has, but we came up with the specification to improve the overall reliability and availability of our entire system. We have asked other vendors for the same request, but



Supermicro’s 1U SuperServer® SC813MT-280CB supporting Intel® Xeon® Processor L5520.

Systems such as this were optimized for low-power consumption and used to host Yahoo JAPAN’s Shinsai Portal after the 2011 Great Quake & Tsunami Disaster.



Yahoo! JAPAN’s (Shinsai) Earthquake Recovery Site

the responses were too difficult. Supermicro not only responded positively, now we are working together on this joint project,” said Mr. Matsuya. “With cooperation from SoftBank Technology, we look forward to superior products and flexible solutions from Supermicro in the future.”



From the Right: Ms. Mayumi Sekiguchi, Supermicro, Japan;
Mr. Masanori Takayoshi, SoftBank Technology

Customer Profile



Yahoo Japan Corporation

Established: January 1996

Address: Midtown Tower
9-7-1 Akasaka, Minato-ku
Tokyo, Japan

Industry: Internet Advertising, E-commerce, Members
Services, and Others

No. of Employees: 3,835 (as of September 30th, 2011)

URL <http://www.yahoo.co.jp/>

About Supermicro

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