

EXCERPT

Japan High Availability Clustering Software 2007-2011 Forecast and 2006 Vendor Shares

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IN THIS EXCERPT

This excerpt is taken from the IDC document, "*Japan Virtualization and High Availability Clustering Software 2007-2011 Forecast and 2006 Vendors Share* (IDC #JP322102Q, April 2008)", by Mitsuhiro Iriya, Research Analyst, Software, IDC Japan. The following sections are included: IDC Opinion, Situation Overview of HA clustering software market and NEC profile, Future Outlook, and Essential Guidance. Also included are Table 5, Figure 7, Table 9, Table 10 and Figure 10.

EXECUTIVE SUMMARY

- ☒ The Japan HA clustering software market posted a year-on-year increase of 19.8% to 13.433 billion yen in 2005. Following the economic recovery in 2005, server unit shipments, in particular for x86 servers, increased significantly and HA clustering software correspondingly also enjoyed strong growth. There were also several large-scale contracts of several hundred units. In 2006, the market grew by 11.0% against the previous year to 14.911 billion yen. While the market appeared to be cooling down as compared to 2005, double-digit growth was maintained and the implementation of Linux and Windows x86 servers continued.
- ☒ In terms of vendors' share, NEC had the largest share of 22.2%, with 3.315 billion yen in revenues. In second place was Fujitsu, with 3.086 billion yen in revenue and 20.7% in market share. Toshiba Solutions had the third largest market share of 19.6% with 2.916 billion yen in revenues. The top three companies in this segment compete fiercely for market share.
- ☒ IDC forecasts that the Japan HA clustering software market will grow by 15.8% year-on-year to 17.266 billion yen in 2007, and will reach 30.68 billion yen by 2011, with a CAGR of 15.5% from 2006 to 2011.

SITUATION OVERVIEW

Japan HA Clustering Software Market Trends

Japan HA Clustering Software Market Size

HA clustering software was originally meant to increase sales of proprietary hardware systems by server vendor companies and was largely Unix-based and platform-specific. However, with the increase of the use of Windows and Linux for mission-critical systems, the demand for HA clustering software has also increased. Vendors have begun to enhance their offerings for Windows and Linux, and to provide more cost-effective and manageable products that can be easily implemented.

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Table 5 shows actual revenue figures by operating environment. The percentage attributed to Unix systems dropped from 58.4% in 2004 to 52.2% in 2006 due to the decrease in server unit shipments. However, Linux and Windows revenue figures soared. In particular, Linux systems grew by 42.5% in 2005 due to large-scale contracts and increased migration from Unix servers to Linux servers, to reach market share of 24.6% in 2006.

TABLE 5

Japan HA Clustering Software Revenue by Operating Environment, 2004-2006

	2004	2005	2006
Revenue (Million Yen)			
Unix	6,551	7,266	7,776
Linux and Other Open Source	2,203	3,138	3,667
Windows 32 and 64	2,246	2,796	3,231
Others	215	233	237
Total	11,215	13,433	14,911
Growth Rate			
Unix	-	10.9%	7.0%
Linux and Other Open Source	-	42.5%	16.9%
Windows 32 and 64	-	24.5%	15.6%
Others	-	8.4%	1.7%
Total	-	19.8%	11.0%
Share			
Unix	58.4%	54.1%	52.2%
Linux and Other Open Source	19.6%	23.4%	24.6%
Windows 32 and 64	20.0%	20.8%	21.7%
Others	1.9%	1.7%	1.6%
Total	100.0%	100.0%	100.0%

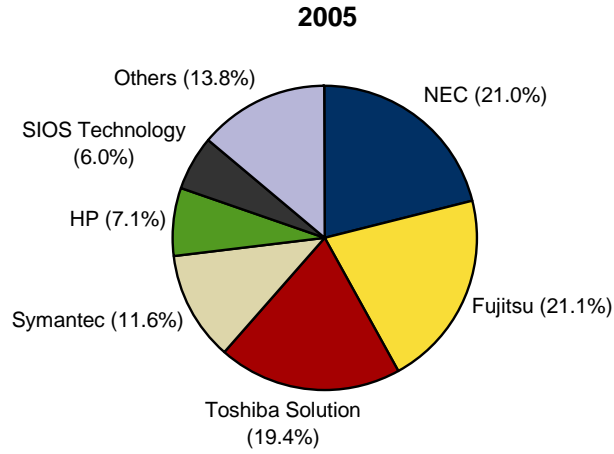
Source: IDC Japan, December 2007

Japan HA Clustering Software Vendor Trends

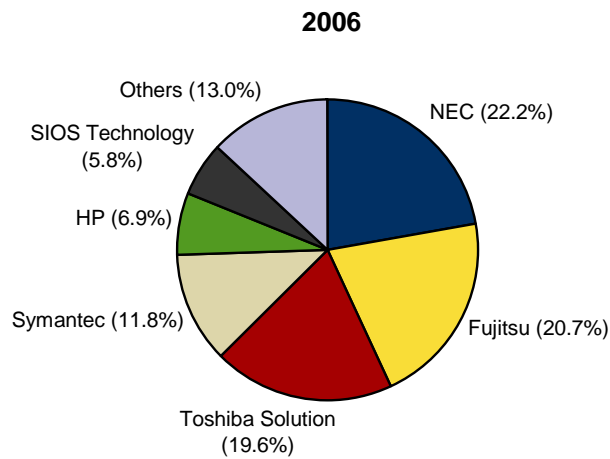
Figure 7 shows the Japan HA clustering software revenue by vendor. In 2006, NEC gained the largest market share, 22.2% at 3.315 billion yen. NEC had managed to grow its revenue by a large margin in 2005 when the company bagged several large contracts involving several hundred Linux-based systems from the finance industry. The company's strength in top-ranked x86 servers as well as improved sales channels through relationships with Linux distributors and partners, contributed to increased demand for Linux. Furthermore, based on designated supplier lists from system integrators, there has been increased adoption of proprietary servers systems, especially from foreign vendors.

FIGURE 7

Japan HA Clustering Software Revenue by Vendor, 2005 and 2006



Total = 13.433 Billion Yen



Total = 14.911 Billion Yen

Source: IDC Japan, December 2007

Trends in Japan HA Clustering Software Market by Major Platform

In order to clearly show shipment trends for the respective operating environment, revenues accruing from maintenance have been excluded. On the whole, the 2006 market grew by 8.3% against the previous year to reach 9.582 billion yen. Comparatively, the growth in maintenance fees was very low as compared to the overall growth for software revenue as a whole.

For OS-specific trends, Linux license revenue grew by a large proportion of 40.6% in 2005. From 2004 to 2006, Unix sales dropped from 56.9% of the total to 50%, while Linux grew its share from 20.7% to 26.5%.

Tables 9–10 show vendor-specific license revenues for Linux, and Windows platforms respectively. NEC was the best performer for both the Linux and Windows segments.

TABLE 9

Japan HA Clustering Software Market: Linux License Revenue by Vendor, 2004-2006

	2004	2005	2006
Revenue (Million Yen)			
NEC	438	898	1,115
SIOS Technology	434	530	498
Fujitsu	195	220	313
Toshiba Solution	323	301	281
Symantec	40	86	146
HP	21	38	54
Others	111	123	130
Total	1,561	2,196	2,537
Growth Rate			
NEC	-	105.2%	24.2%
SIOS Technology	-	22.0%	-6.0%
Fujitsu	-	12.8%	42.3%
Toshiba Solution	-	-6.7%	-6.6%
Symantec	-	117.2%	69.8%
HP	-	81.0%	42.1%
Others	-	10.6%	5.7%
Total	-	40.6%	15.5%
Share			
NEC	28.0%	40.9%	43.9%
SIOS Technology	27.8%	24.1%	19.6%
Fujitsu	12.5%	10.0%	12.3%
Toshiba Solution	20.7%	13.7%	11.1%
Symantec	2.5%	3.9%	5.8%
HP	1.3%	1.7%	2.1%
Others	7.1%	5.6%	5.1%
Total	100.0%	100.0%	100.0%

Note: Includes Linux and other open source environment

Source: IDC Japan, December 2007

TABLE 10

Japan HA Clustering Software Market: Windows License Revenue by Vendor, 2004-2006

	2004	2005	2006
Revenue (Million Yen)			
NEC	742	1,023	1,130
Microsoft	373	442	510
Toshiba Solution	361	384	399
SIOS Technology	6	6	64
Fujitsu	68	35	55
Symantec	7	8	9
Others	12	12	13
Total	1,570	1,910	2,180
Growth Rate			
NEC	-	37.8%	10.5%
Microsoft	-	18.4%	15.4%
Toshiba Solution	-	6.4%	3.9%
SIOS Technology	-	0.0%	966.7%
Fujitsu	-	-48.3%	57.1%
Symantec	-	15.9%	12.5%
Others	-	-0.8%	8.3%
Total	-	21.7%	14.1%
Share			
NEC	47.3%	53.6%	51.8%
Microsoft	23.8%	23.1%	23.4%
Toshiba Solution	23.0%	20.1%	18.3%
SIOS Technology	0.4%	0.3%	2.9%
Fujitsu	4.3%	1.8%	2.5%
Symantec	0.4%	0.4%	0.4%
Others	0.8%	0.6%	0.6%
Total	100.0%	100.0%	100.0%

Note: Includes Windows 32-bit and 64-bit versions

Source: IDC Japan, December 2007

NEC Profile

In September 2006, all of NEC's HA software products, which had been sold under the brand "CLUSTERPRO" up till then, were consolidated under the new product group "CLUSTERPRO X." Under the new brand, "CLUSTERPRO X 1.0" was positioned as a core clustering software product. CLUSTERPRO X 1.0 is supported by Windows and Linux platforms.

In June 2007, CLUSTERPRO X SingleServerSafe, a product aimed at enabling the implementation of HA on a single server, was released. This software enables a single server to automatically detect errors in both OS and applications as well as implement restart and restore functions. CLUSTERPRO X 1.0 could effectively switch between setting tools and management screen, allowing users to easily expand, enhance and upgrade existing systems.

Note:
"CLUSTERPRO" is used as a NEC's HA software brand name only for the Japan market, while "EXPRESSCLUSTER" is used for the market outside Japan.

A noteworthy characteristic of NEC's business is that its products for Linux platforms are experiencing high growth. This is due to its strong relationship with its partners and its expanded distribution channels. In order to enhance sales of CLUSTERPRO as well as to strengthen relationships with other companies, NEC formed "CLUSTERPRO WORKS" to promote sharing of information as well as joint marketing efforts. With more than 40 member companies, CLUSTERPRO WORKS included Linux distributors and ISVs, hardware vendors as well as large and medium-sized system integrators.

By strengthening CLUSTERPRO WORKS, NEC managed to extend its reach beyond in-house server providers, but also third party providers of servers. In particular, it managed to increase adoption of its products among foreign vendors.

An important application for which NEC will use clustering techniques will be disaster recovery. For such applications, it is important to strengthen remote cluster functions and support for asynchronous data mirroring, such that cluster system infrastructure can be set up even on networks with limited bandwidth. A low-cost disaster recovery system can be achieved through by the use of clustering software. This naturally makes medium-sized companies, which are unable to make large investments in disaster recovery measures, a target for NEC. Database servers in Tokyo are being backed up in Okinawa, illustrating the increased implementation of such disaster recovery models.

In addition, NEC will enhance functions allowing administrative functions to be carried out remotely when any given cluster within the same local area network (LAN) is down. This means that the software can be configured to ensure that during an emergency or when a fault occurs, a failover will result in server administration to be carried out seamlessly on a remote server. This is scheduled to be released in end March 2008.

NEC began collaboration with VMware in 2002, and CLUSTERPRO support for VMware ESX Server began in 2005.

FUTURE OUTLOOK

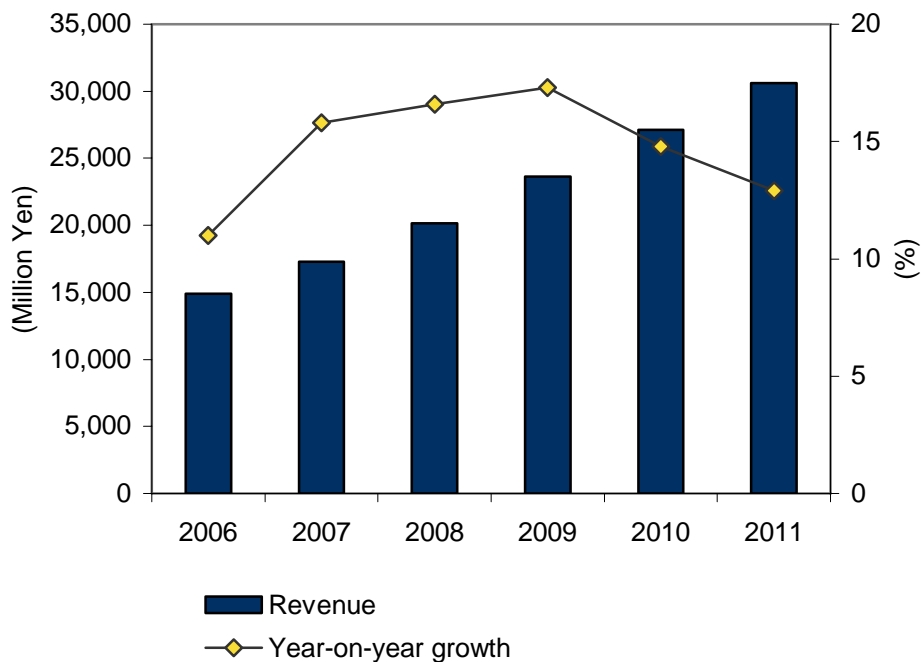
Japan HA Clustering Software Market Forecast

Figure 10 shows the 2006 performance for the Japan HA clustering software market as well as market forecasts for 2007–2011. IDC forecasts that the Japan HA clustering software market will grow by 15.8% year-on-year to 17.266 billion yen in 2007 and will reach 30.68 billion yen by 2011 with a CAGR of 15.5% from 2006 to 2011.

Errors and system downtime could cause companies to lose business opportunities and severely damage the trust which customers have in a company. Hence, users are increasingly demanding more reliable systems, causing strong growth in demand for HA clustering software. The market for such software can be expected to expand in the future.

FIGURE 10

Japan HA Clustering Software Revenue Forecast, 2006-2011

**Notes:**

- Figures for 2006 are the actual values.
- Figures for 2007 onwards are forecast values.

Source: IDC Japan, December 2007

ESSENTIAL GUIDANCE

HA clustering software is gradually shifting from a Unix-focused market to that for Linux and Windows. In particular, Linux systems are enjoying very strong and sustained growth, and can be expected to have a large impact on the market in the future. In addition, clustering solutions have evolved from traditional 1:1 failover clusters to 1:N or N:N configurations, which incorporate multiple nodes in a cluster, and even extending to utilizing remote clusters for disaster recovery applications.

With the above background, IDC presents some recommendations below on potential business opportunities in HA clustering software which vendors and system integrators may find useful:

- ☒ **Strengthening of multi-platform business.** Users have begun to use Linux and Windows in mission-critical areas, resulting in a gradual conversion of the cluster market to include multiple platforms. Even though the number of vendors with multi-OS product solutions is increasing, it is difficult to assert that there is a strong business opportunity due to the continued popularity of fixed OS configurations. It may be necessary for vendors to carry out their marketing based on specific market needs for each platform, and to reconsider their partners and channels.

- ☒ **Adding value to clustering solutions.** Amidst the increasing need for business continuity, the need for high-availability systems and disaster recovery measures has increased. Clustering is an effective solution for both of these needs. Vendors should aggressively come up with solutions that add value in these ways and this will drive the growth and expansion of this market.

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