

FORECAST UPDATE

Worldwide Purpose-Built Backup Appliance 2011–2015 Forecast Update: Explosive Growth in 2011

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IDC OPINION

The worldwide purpose-built backup appliance (PBBA) market experienced explosive growth in the first half of 2011. The worldwide PBBA revenue totaled \$1.2 billion for the first half of 2011. In addition, we expect the total full-year 2011 worldwide PBBA revenue will exceed our initial forecast by a wide margin, to reach nearly \$2.8 billion. This is well above our initial worldwide PBBA revenue forecast of \$2.1 billion earlier this year. The exceptional growth is due to increased use and customer adoption of PBBA systems for backup, recovery, and storage optimization with the use of data deduplication. We believe the customer drivers for increased investment in PBBA solutions result from the need to improve backup window time, to provide faster restore and recovery times, and to enable seamless integration with existing backup applications. As a result, customers are aggressively moving away from tape-based backup and recovery processes. At midyear 2011, the worldwide PBBA market value exceeded that of the worldwide branded tape market, which includes tape drives and automation products. This trend will continue for the foreseeable future as customers take advantage of the PBBA's rich feature sets, particularly for virtual server protection, rapid recovery, and data deduplication. However, tape will still be used and deployed alongside PBBA systems in customer environments primarily as an archive platform. We are very upbeat on the growth potential of PBBA systems through the forecast period, which prompted this Forecast Update. IDC finds:

- ☒ In the first half of 2011, EMC remained the revenue share leader, commanding 62.0% of the \$1.2 billion spent on PBBA solutions. IBM and HP followed, with 20.7% and 3.2% revenue share, respectively. In addition, EMC held the top share position in terms of total worldwide PBBA capacity, with 63.5% of the raw terabytes shipped. HP held 8.9% of the total worldwide PBBA capacity shipped, while IBM held 7.7% for the same period.
- ☒ The worldwide PBBA market totaled nearly \$1.7 billion in 2010. In addition, there were 467,569TB of raw capacity shipped during the same period. We anticipate the worldwide PBBA market is on course to total \$2.8 billion for the full year of 2011.
- ☒ We expect the total worldwide PBBA revenue will grow robustly with a compound annual growth rate (CAGR) of 25.6%, totaling nearly \$5.3 billion by the close of 2015. Furthermore, we expect rapid growth in capacity shipped for PBBA solutions as customers continue to forego investments in their tape infrastructure. We anticipate total capacity shipped will increase at a 47.6% CAGR, totaling nearly 3.3EB at the close of 2015.

IN THIS FORECAST UPDATE

This IDC Forecast Update provides share positions for revenue and raw capacity for nine named PBBA vendors for the first half of 2011. In addition, this study provides the market size and a five-year forecast for the worldwide PBBA market as part of IDC's Storage Solutions coverage. The five-year forecast includes total factory revenue and raw capacity in terabytes through 2015. The worldwide PBBA market covers both open system– and mainframe-attached products.

Note: All numbers in this document may not be exact due to rounding.

Situation Overview

The worldwide PBBA market comprises of a wide array of products that are designed as backup targets and provide rapid recovery. PBBA solutions are designed for capacity optimization utilizing data deduplication that enables customers to manage their ever-growing volumes of backup data. We believe customers are gravitating toward deployment of PBBA solutions as a way to control their data protection capital and operational expenditures. Also, PBBA solutions provide customers a way to extend their existing investments in data protection hardware and software without having to change any existing process. In many cases, a firm's investments in data protection software and hardware solutions are very costly and are not subject to rapid replacement cycles. Thus PBBAs allow customers to have a great deal of coexistence with regard to software and hardware.

The worldwide PBBA market covers products designed for open system and mainframe environments. This worldwide PBBA Forecast Update reports aggregate market share and forecasts for revenue and total raw capacity. The majority of the PBBA revenue and capacity are contained in open system solutions. The open system PBBA solutions account for 87% of the market revenue and 92% of the total capacity shipped in the first half of 2011. The open system PBBA systems are, in many cases, designed to supplant tape, while the mainframe PBBA systems are deployed with a large physical tape component. This is true for IBM and Oracle. However, EMC has brought to market tapeless versions of the mainframe PBBA systems. The worldwide PBBA analysis only reports the disk cache and server engine components of the mainframe market. If physical tape was included, the capacity and market value for mainframe PBBA systems' overall revenue and capacity would be larger. Physical tape is excluded in the worldwide PBBA analysis to normalize comparisons for open system and mainframe systems.

The market share results for the nine named PBBA vendors covers the first half of 2011. IDC has collected actual data for the third calendar quarter to more accurately ascertain the annual 2011 PBBA market performance. The overall first half of 2011 market share positions have not changed appreciably from year-end 2010. EMC continues to hold the top revenue share position, with 62.0% of the total \$1.2 billion in PBBA market revenue. IBM and HP held the number 2 and number 3 positions, with 20.7% and 3.2%, respectively. IBM's position reflects its significantly improved share position in the open system PBBA market. Meanwhile, Quantum held 2.5% revenue share for the first half of 2011. Quantum's share position is slightly lower than its full-year 2010 position; however, its third-quarter performance improved with new product

introductions. Symantec is a newly named PBBA vendor for 2011. Symantec held 2.3% of the total worldwide revenue share for the first half of 2011. We expect Symantec will maintain a very aggressive footing in the PBBA market in the year ahead with its strong emphasis on appliance-based data protection (see Table 1). In terms of total worldwide PBBA capacity share, EMC continued to hold the top position, with 63.5% of the total raw 349,547TB shipped. This is up from 52.7% share position at year-end 2010. However, HP eclipsed IBM in total raw PBBA capacity in the first half of 2011, holding 8.9% share compared with IBM's 7.7% share (see Table 2).

TABLE 1

Worldwide Purpose-Built Backup Appliance Revenue by Vendor, 1H11

	Revenue (\$M)	Share (%)
EMC	713.8	62.0
IBM	238.7	20.7
HP	36.5	3.2
Quantum	29.3	2.5
Symantec	26.3	2.3
Oracle	22.8	2.0
SEPATON	18.9	1.6
Dell	13.1	1.1
FalconStor	9.7	0.8
Other	42.3	3.7
Total	1,151.3	100.0

Note: Revenue share includes open and mainframe PBBA systems.

Source: IDC, 2011

TABLE 2**Worldwide Purpose-Built Backup Appliance Capacity by Vendor, 1H11**

	Capacity Shipped (TB)	Share (%)
EMC	221,818	63.5
HP	30,999	8.9
IBM	26,821	7.7
Quantum	17,000	4.9
Symantec	10,658	3.0
Dell	7,155	2.0
FalconStor	6,370	1.8
Oracle	3,727	1.1
SEPATON	2,720	0.8
Other	22,280	6.4
Total	349,547	100.0

Note: Capacity share includes open and mainframe PBBA systems.

Source: IDC, 2011

FUTURE OUTLOOK

Forecast and Assumptions

We are very bullish on the long-term outlook for the worldwide PBBA market. We have increased our full-year 2011 worldwide PBBA forecasts for both revenue and total capacity growth. This Forecast Update covers the first-half 2011 results. However, IDC has captured the third calendar quarter results for the named PBBA vendors to provide a more complete picture of full-year 2011 results. All PBBA market participants benefitted from overall market growth despite the stability in the share positions. We anticipate the PBBA market will total nearly \$2.8 billion in total revenue. We expect total worldwide PBBA revenue will increase by a 25.6% CAGR through 2015, totaling \$5.3 billion (see Table 3). We expect total worldwide PBBA capacity will increase by a 47.6% CAGR, totaling nearly 3.3EB (see Table 4).

TABLE 3**Worldwide Purpose-Built Backup Appliance Revenue, 2010–2015**

	2010	2011	2012	2013	2014	2015	2010–2015 CAGR (%)
Revenue (\$M)	1,690.4	2,797.8	3,822.4	4,564.3	5,026.2	5,290.8	25.6
Growth (%)	NA	65.5	36.6	19.4	10.1	5.3	

Note: See Table 5 for top 3 assumptions and Table 6 for key forecast assumptions.

Source: IDC, 2011

TABLE 4**Worldwide Purpose-Built Backup Appliance Capacity Shipped, 2010–2015**

	2010	2011	2012	2013	2014	2015	2010–2015 CAGR (%)
Capacity shipped (TB)	467,569	921,545	1,488,942	2,084,084	2,676,814	3,275,908	47.6
Growth (%)	NA	97.1	61.6	40.0	28.4	22.4	

Note: See Table 5 for top 3 assumptions and Table 6 for key forecast assumptions.

Source: IDC, 2011

At this time, lackluster national and international economic performance has not dampened the demand for PBBA systems. The exceptional value proposition that PBBA systems provide customers with continues to stoke demand worldwide. We expect this will remain largely unchanged through the forecast period. Products, such as PBBA systems, that allow customers to reduce costs and remain operationally efficient will continue to experience investment. Tables 5 and 6 provide the assumptions for this forecast.

TABLE 5

Top 3 Assumptions for the Worldwide Purpose-Built Backup Appliance Market, 2011–2015

Market Force	IDC Assumption	Significance	Changes to This Assumption That Could Affect Current Forecast	Comments
Economy	<p>GDP growth will remain broadly stable in 2011, with no double-dip recession in spite of some downside risk factors. Worldwide GDP growth will drop to around 3% (from 4% in 2010), primarily because the surging rebound in emerging markets will plateau into a more sustainable trend. The U.S. economy will perform strongly, with GDP growth accelerating slightly to more than 3%. Assuming no return of the sovereign debt crisis, Western Europe will also see continued growth in 2011 (but slightly weaker than in 2010 due partly to government austerity programs). Japan will struggle to maintain momentum, with much weaker growth than last year, but other economies in Asia/Pacific will continue to perform strongly.</p>	<p>A down economy affects business and consumer confidence, availability of credit and private investment, and internal funding.</p>	<p>Another significant national economic recession could adversely impact the growth in this market.</p>	<p>Currently, there is no indication of a double-dip economic recession.</p>

TABLE 5

Top 3 Assumptions for the Worldwide Purpose-Built Backup Appliance Market, 2011–2015

Market Force	IDC Assumption	Significance	Changes to This Assumption That Could Affect Current Forecast	Comments
Fiscal stimulus packages	Stimulus spending probably helped many economies avoid a longer, deeper recession and drove much of the momentum in 2010. The positive benefits of previous stimulus measures will gradually wane in the next 12 months, but some trickle-through effects will persist. Tighter fiscal policy in most economies will likely have a contractionary effect on private demand and economic activity in the short term.	The stimulus packages and bailouts seem to have averted disaster, but the positive benefits will wane in 2011. We believe the GDP forecasts have accounted for these government actions.	Fiscal stimulus could help propel spending growth of the overall IT market.	Fiscal stimulus may not be a significant driver of PBBA market growth.
Oil prices	Oil prices will rise in 2011 as a result of rising demand as the global economy picks up. There is some concern that this, combined with other inflationary forces, may have an adverse impact on economic growth in the short term. Our baseline assumption is that prices will remain within a range that doesn't derail the economic recovery.	While lower oil prices help spur lagging consumer spending, higher prices signal that demand is rising.	Oil prices will not have a large impact on PBBA during the forecast period.	Oil prices will not have a large impact on PBBA market spending.

Source: IDC, 2011

TABLE 6

Key Forecast Assumptions for the Worldwide Purpose-Built Backup Appliance Market, 2011–2015

Market Force	IDC Assumption	Impact	Accelerator/ Inhibitor/ Neutral	Certainty of Assumption
Macroeconomics				
Economy	<p>GDP growth will remain broadly stable in 2011, with no double-dip recession in spite of some downside risk factors. Worldwide GDP growth will drop to around 3% (from 4% in 2010), primarily because the surging rebound in emerging markets will plateau into a more sustainable trend. The U.S. economy will perform strongly, with GDP growth accelerating slightly to more than 3%. Assuming no return of the sovereign debt crisis, Western Europe will also see continued growth in 2011 (but slightly weaker than in 2010 due partly to government austerity programs). Japan will struggle to maintain momentum, with much weaker growth than last year, but other economies in Asia/Pacific will continue to perform strongly.</p>	<p>High. A down economy affects business and consumer confidence, availability of credit and private investment, and internal funding.</p>	↑	★★★★☆
Fiscal stimulus packages	<p>Stimulus spending probably helped many economies avoid a longer, deeper recession and drove much of the momentum in 2010. The positive benefits of previous stimulus measures will gradually wane in the next 12 months, but some trickle-through effects will persist. Tighter fiscal policy in most economies will likely have a contractionary effect on private demand and economic activity in the short term.</p>	<p>Moderate. The stimulus packages and bailouts seem to have averted disaster, but the positive benefits will wane in 2011. We believe the GDP forecasts have accounted for these government actions.</p>	↔	★★★★☆☆

TABLE 6

Key Forecast Assumptions for the Worldwide Purpose-Built Backup Appliance Market, 2011–2015

Market Force	IDC Assumption	Impact	Accelerator/ Inhibitor/ Neutral	Certainty of Assumption
Oil prices	Oil prices will rise in 2011 as a result of rising demand as the global economy picks up. There is some concern that this, combined with other inflationary forces, may have an adverse impact on economic growth in the short term. Our baseline assumption is that prices will remain within a range that doesn't derail the economic recovery.	Low. While lower oil prices help spur lagging consumer spending, higher prices signal that demand is rising.	↔	★★☆☆☆
Technology/ industry developments				
Server consolidation	Concerns about the manageability and efficiency of information in distributed file servers will force many companies to undertake consolidation programs for file assets.	High. Consolidation will drive demand for entry NAS and clustered NAS appliance/gateway solutions as well as spur demand for more intelligent data management capabilities that scale across multiple FBS systems.	↑	★★★★★
Massive scale-out storage	Massive scale-out storage systems will begin to have a more visible effect on the market in 2011 as many content depots and cloud service providers begin to build out large content and compute-centric environments. The impact of this new model on sales of more traditional environments will be more significant in the cloud service market than in the traditional enterprise market.	Moderate. Massive-scale storage systems will account for a significant amount of storage capacity, but their extremely low dollar-per-gigabyte levels will inhibit hardware revenue growth.	↑	★★★★★

TABLE 6

Key Forecast Assumptions for the Worldwide Purpose-Built Backup Appliance Market, 2011–2015

Market Force	IDC Assumption	Impact	Accelerator/ Inhibitor/ Neutral	Certainty of Assumption
Storage in the cloud	Explosive growth of information (and outside of) the cloud will, more than in any other infrastructure category, drive demand for storage systems with a lesser impact on software and services.	Moderate. Cloud-based storage is still an evolving architecture. While it will generate significant interest from certain types of organizations (e.g. content delivery network providers), overall, it will cause a shift of end-user spending from traditional on-premise storage implementations to cloud services. There will be a bigger impact on certain categories of storage systems, specifically in file servers and clustered NAS.	↔	★★★★☆
Convergence	Convergence is a complex phenomenon working at many levels — in the case of storage, networking, and processing in the datacenter, this is driven by an organization's desire to deploy scalable virtualized datacenters. One option for enabling converged IT infrastructure is greater use of FBS solutions for image loading and data management. This development, in conjunction with 10GbE deployments, may drive accelerated demand for NAS appliances and gateways.	High. Convergence will drive new competitive dynamics, offer new applications and functions to customers, and strain the legal and regulatory systems. It will also drive increased ICT spending.	↑	★★★★☆☆

TABLE 6**Key Forecast Assumptions for the Worldwide Purpose-Built Backup Appliance Market, 2011–2015**

Market Force	IDC Assumption	Impact	Accelerator/ Inhibitor/ Neutral	Certainty of Assumption
Long-term archiving and data management	The optimization of storage infrastructure and storage/data management services in long-term and active archive environments will see opportunity.	Moderate. The strain on IT resources to manage growing volumes of file data in archives will necessitate increased demand for FBS storage solutions designed for maximum efficiency, minimal storage management, and advanced indexing/metadata analytic capabilities and may require support for a tape tier and a cloud tier.	↑	★★★★☆

Legend: ★☆☆☆☆ very low, ★★☆☆☆ low, ★★★☆☆ moderate, ★★★★☆ high, ★★★★★ very high

Note: Economic, political, technology, and industry assumptions for the entire storage market can be found in *Worldwide Enterprise Storage Systems 2010–2014 Forecast Update: Better Expectations on 2010 Growth, No Changes to Long-Term Outlook*: (IDC #224618, August 2010).

Source: IDC, 2011

Market Context

An initial five-year forecast was published for the worldwide PBBA market in *Worldwide Purpose-Built Backup Appliance 2011–2015 Forecast and 2010 Vendor Shares* (IDC #228091, May 2011). Table 7 and Figure 1 compare the forecast published in that document with the current forecast in terms of worldwide annual growth rates. The increase in the current worldwide PBBA Forecast Update is due to the better-than-expected 2011 results and strong customer adoption of these solutions. We anticipate the actual 2011 revenue will total \$2.8 billion based on three quarters of results. This is well above \$2.1 billion originally forecast in May 2011.

TABLE 7

Worldwide Purpose-Built Backup Appliance Revenue, 2010–2015: Comparison of May 2011 and December 2011 Forecasts (\$M)

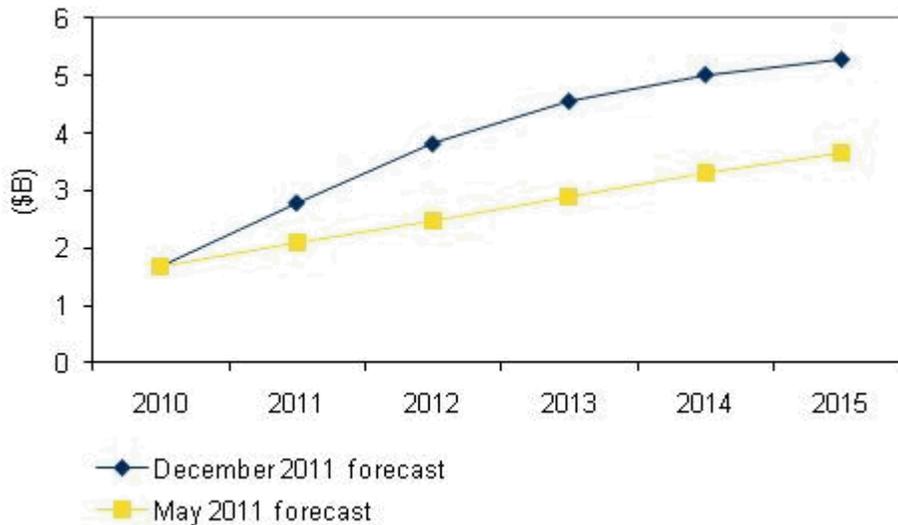
	2010	2011	2012	2013	2014	2015	2010–2015 CAGR (%)
December 2011 forecast	1,690.4	2,797.8	3,822.4	4,564.3	5,026.2	5,290.8	25.6
Growth (%)	NA	65.5	36.6	19.4	10.1	5.3	
May 2011 forecast	1,690.4	2,103.0	2,476.5	2,878.3	3,294.5	3,645.3	16.6
Growth (%)	NA	24.4	17.8	16.2	14.5	10.6	

Note: See *Worldwide Purpose-Built Backup Appliance 2011–2015 Forecast and 2010 Vendor Shares* (IDC #228091, May 2011) for prior forecast.

Source: IDC, 2011

FIGURE 1

Worldwide Purpose-Built Backup Appliance Revenue, 2010–2015: Comparison of May 2011 and December 2011 Forecasts



Source: IDC, 2011

ESSENTIAL GUIDANCE

We expect vigorous customer adoption of PBBA solutions for the foreseeable future. From a vendor perspective, IDC believes that it's sound and prudent advice to do the following:

- ☒ Demonstrate the utility and value of using PBBA solutions in concert with existing data protection infrastructure — software and hardware.
- ☒ Provide nondisruptive integration of PBBA solutions to customers' existing data protection and disaster recovery frameworks so they need not change any procedures and policies.
- ☒ Support seamless data movement from PBBA systems to physical tape to support archive and disaster recovery.
- ☒ Support industry-standard interfaces, APIs, and application software to ease deployment.
- ☒ Add features that optimize storage efficiency, such as data deduplication.
- ☒ Support virtualized server environments enabling customers to use the same tools to safeguard both physical and virtual infrastructure.
- ☒ Link with or enable cloud storage initiatives.

LEARN MORE

Related Research

- ☒ *Worldwide Branded Tape 1Q11 and 2Q11 Vendor Analysis* (IDC #231608, November 2011)
- ☒ *Worldwide Disk-Based Data Protection and Recovery Software 2011–2015 Forecast* (IDC #230684, October 2011)
- ☒ *Worldwide Purpose-Built Backup Appliance 2010–2015 Forecast and 2010 Vendor Shares* (IDC #228091, May 2011)

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