

US technology M&A insights

Analysis and trends in US technology M&A activity 2012

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At a glance

Wrenching changes across the political, natural and economic spectrums created a challenging environment for M&A in the technology industry.

Despite challenges and a decline in deal volume, the software, Internet and semiconductor sectors saw large acquisitions which increased overall deal value for technology.

Innovation and time to market will continue to fuel M&A and provide opportunities for technology executives to acquire companies to set them apart from their competitors in the year ahead.

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Introduction

This year's report represents our fourth annual publication of deal activity and trends in the US technology industry. The year in technology was shaped, in large part, by wrenching changes across the political, natural, and economic spectrums.

On the political front, the dawn of an Arab Spring led to the sunset of a number of long-incumbent political regimes. Beginning with the escape of Tunisian president Zine el-Abidine Ben Ali to Saudi Arabia, protests and revolution across the Middle East ended with the death of Libyan leader Muammar Qaddafi after a 42-year reign. Along the way, demonstrations and civil uprising throughout the Arab world led to the trial of Egyptian president Hosni Mubarak after 30 years of rule, the transition of Yemen's president after a 33-year reign, and government reform in Morocco.

With over a third of the world's population residing in the emerging economies of BRIC countries (Brazil, Russia, India and China), all eyes have turned to the economic growth and political climate of these markets. As Russia's Prime Minister, Vladimir Putin, established a plan to become president in 2012, protestors in Moscow took to the streets in numbers not seen since the fall of the Iron Curtain. China, on the other hand, deterred a "jasmine revolution" with increased restrictions on public demonstrations and censorship of social media platforms. Brazil's new president, Dilma Rousseff, saw the resignation of several government ministers from her cabinet amid various corruption scandals. And India witnessed a large-scale anti-corruption movement

resulting in a proposed anti-corruption bill in both houses of congress. Although the trajectory of these economies remains positive, the air of unrest contributed to a level of instability, which prompted some analysts to lower expectations for growth in these markets. The International Monetary Fund reduced its growth forecast of the global economy to 4%, and advanced economies, such as the United States, Japan, and the United Kingdom, were forecast at only 2%.

Not to be outdone by politics, Mother Nature had her fair share of impact on the technology industry during the year. In March, Japan experienced the worst earthquake in the country's history. The earthquake, and the tsunamis that followed, devastated a large portion of Japan's Northeastern coastline, damaged the Fukushima nuclear power plant, and disrupted manufacturing capabilities and supply chains throughout the country. As the sector began to emerge from these disruptions, Thailand was consumed by floods in the late fall, which interrupted transportation, power and communications, and stifled the flow of semiconductor and electronic components out of Southeast Asia. Analysts estimate that hard disk drive manufacturing alone, of which over 40% is estimated to come from Thailand, is not expected to recover until late 2012.

The world economy continued to play its part as potential spoiler as the sovereign debt problems in Europe continued in 2011, resulting in another rescue package by Eurozone leaders in October 2011 that had an adverse ripple effects across world credit markets and the global economy. The crisis resulted in financing problems for private equity houses and other investors, resulting in increased equity stakes, a higher number of consortium deals, and reduced availability of attractive funding sources in the second half of the year.

Europe was not the only region plagued by debt problems. In the United States, after severe political discord, Congress reached an eleventh-hour agreement in May to increase the federal debt ceiling, but could not deter a subsequent downgrade by Standard & Poor's of its AAA rating nor

Mother Nature, political turmoil and a global economic crisis all played their part in a challenging year for technology companies.

Despite US stock market malaise, the top 20 technology companies increased their cash coffers to over \$300 billion by year end.

avert the continuous rise of the nation's public debt, which exceeded \$15 trillion by year end. Although US unemployment figures seemed to improve in the last few months of the year, some attribute the decrease largely to a portion of the disheartened unemployed permanently leaving the workforce.

The US stock markets ended a lackluster year, with the Dow Jones ending the year up 5%, the NASDAQ ending the year down 1.8%, and the S&P500 flat compared to the previous year, after a great deal of volatility. Global indices did not fare much better. Some analysts estimate as much as \$6 trillion of market value was lost in 2011. On the technology front, the S&P North American Technology Sector Index ended the year just slightly negative compared to last year. While less than stellar on the surface, the technology industry fared better than most other industries, and the flat returns mask the growth and decline in subsectors that signal an underlying shift in spend from hardware and telecommunications equipment to software and services—further evidence of a transition to cloud offerings.

Shortly after year end, Gartner lowered its 2012 technology spend forecast to 3.7%, and Forrester followed suit with a forecast of 5.2%. Gartner and Forrester estimate technology spend in 2011 totaled 6.9% and 9.7%, respectively, based on their individual metrics. The decrease in anticipated IT spend in 2012, just over half that of 2011, provides an interesting view of growth in technology businesses in the coming year.

While technology spend forecasts have been reduced, the technology industry has generally bucked the negative trends experienced by the vast majority industries over the last few years. Despite the stock market malaise, profitable tech businesses managed to sock away cash during the year, increasing the coffers of the top 20 US technology companies to over \$300 billion of cash and marketable investments by year end. That's more than the total transaction value of closed technology deals in the last three years combined.

Technology continues to outperform other industries. Some of the largest technology companies are trading at average EBITDA multiples of 11.1, with a median of 8.8. In addition, a large number of technology transactions in the third quarter of 2011 registered average multiples of 20.3, highlighting a potential premium placed by acquirers on potential growth and anticipated synergies from these acquisitions.

In addition, several technology businesses, largely Internet-based, were of keen interest to IPO participants in 2011. During the year, the market witnessed the public offerings of Groupon, Zynga, LinkedIn, Pandora, and other tech-focused businesses. While overall IPO filings declined in terms of volume and value in 2011 compared to 2010 due to market volatility experienced during the year, key technology players have not completely written off IPO ambitions. Not long after year end, the much anticipated IPO filing of Facebook was announced, signaling what is anticipated to be one of the largest technology IPOs in history.

The positive, albeit somewhat retracted, growth signals sent by the technology industry bode well for technology businesses in 2012. The industry as a whole will not be immune to the difficulties experienced by the global economy, but positive spend growth, large cash balances, and a predisposition to M&A driven by innovation, strategic objectives, and anticipated synergies are likely to keep the technology industry in the top spot for M&A activity in 2012.

Outlook for 2012

M&A drives innovation and change for tech participants

For the past decade, technology has been at the forefront of deal activity, leading all other industries in terms of deal volume in each of the last 10 years. In addition, technology deals have consistently ranked in the top half of industries in terms of deal value. The level of M&A activity at technology companies points to a few fundamental drivers deeply embedded in these businesses, not the least of which is the constant need for innovation. Technology-focused businesses, continually faced with the rapid change of consumer tastes and intense pressure from competitors to release cutting-edge products and services, are driven toward rapid adoption of new ideas through make-versus-buy decisions. The volume and value of deals closed in 2011 provides further evidence of this trend that is certain to continue in 2012.

Innovation and time to market continue to fuel M&A in the Technology industry.

The technology shifts experienced in 2011 are not expected to change dramatically in 2012, and will likely be much more prominent. The consumerization of products has pushed businesses to adopt technologies in the enterprise that have consistently been favorites at home. Some technology majors have more fully developed strategies to position themselves as cloud leaders, buying up players in the fragmented cloud market in the process. Social media has moved to center stage with announced and completed IPOs by several prominent businesses, and rumblings among businesses on methods to adopt social media platforms as an enterprise collaboration solution. All of these trends bode well for M&A activity among tech companies in the coming year.

Transformational changes steer businesses in new directions

Several companies announced transformational changes in 2011, which may signal more changes to come as competitors adopt similar strategies to stay ahead of strategic shifts by tech players. Google announced an entrance into the mobile handset market in a big way with the acquisition of Motorola Mobility. HP announced the spin-off of its PSG business (later canceled) at the same time it announced the acquisition of Autonomy. We expect a continuation of shifts in strategic direction resulting in sizable acquisitions in the coming year.

The cloud stack rises

Although we have yet to see the level of crossover activity previously anticipated among data storage and networking businesses, such transactions are likely to occur in the coming year. The announcement of plans by HP, Oracle, SAP, and others to provide full-service cloud offerings could be a catalyst for competing businesses seeking to create a holistic offering for cloud customers. The relentless competitive drive of these businesses will likely push middle-tier technology enterprises to also acquire incremental offerings to round out their data center stack to service the cloud.

Security concerns continue

With cloud taking over the management of computing assets, security continues to be top of mind for CIOs and users of cloud technology. Security solutions for a variety of devices (tablets, PCs, laptops, mobile phones) from every location will continue to be a key component of a robust cloud solution. Companies with innovative security technologies will make good targets for cloud leaders as holistic cloud solutions are brought to market in greater force.

Big data takes center stage

With nearly 2 billion Internet users across the globe, the volume of data (both structured and unstructured) in the form of emails, tweets, blogs, instant messages, videos, photos, and webpages, is growing at an exponential pace. This information, collected through social media platforms,

websites, and mobile providers, has the potential to provide businesses with specific information about consumer demographics and interests like never before. Businesses that can provide the software tools to collect, organize, analyze, and summarize findings from this data will become highly relevant in the near term and likely targets for a variety of businesses looking to put big data to work.

Consumerization continues

Enterprise IT teams have faced unprecedented pressure from internal consumers for a mix of mobile, tablet, and workspace computing products that reflect personal preferences. Increasingly, the selection of enterprise technologies is being influenced by workplace consumers rather than by CIOs, IT departments, and vendors. The same graphic-rich, always-connected mobile experience employees enjoy at home is demanded for the workplace. As IT departments adapt to the consumerization of products, doors will open for those companies already well established in the consumer market or that can reach an enterprise solution quickly through acquisition.

Social networking finds a place at work

As more and more consumer products find their way into the workplace, companies are recognizing the use of social networking platforms, a favorite of the technology consumer, as more than just a social experience. Enterprises are looking to these platforms as a potential collaboration tool in the workplace. Even “stuffy” professional services organizations and more traditional businesses are looking for ways to use social platforms to connect employees and increase connectivity with an eye toward increased productivity.

Solar energy takes a tumble

This year witnessed the fold of innovative solar technology firm Solyndra, resulting in fallout over government loans provided to the solar industry. With much of worldwide solar panel development and manufacturing moving overseas to China, fueled by Chinese-government subsidies, the nascent US solar market is poised for consolidation, as only those firms with deep pockets and an ability to weather the price

war with China are likely to survive. Like the acquisition of SunPower by French energy giant Total, look for other traditional energy businesses to enter the high-tech solar industry through acquisition, and the possible consolidation of solar companies in the United States.

Online gaming activities surge

2011 witnessed the largest deal in the video game industry in recent history with EA's acquisition of PopCap and a key IPO by online gaming provider Zynga. With low barriers to entry for online gaming, facilitated by social networking sites like Facebook, 2012 will witness additional deal activity as gaming companies expand their footprint and reel in consumers across a variety of platforms—including mobile, social, console, and traditional computers.

Mobile wallets become commonplace

Online and mobile payment technologies have become critical to the success of e-tailers and retailers alike. Consumers seek alternatives to traditional payment systems that provide increased flexibility, leverage consumer devices, and provide tracking methodologies and other money management tools. As some of the larger consumer device companies have yet to establish a robust mobile wallet, businesses with innovative technologies and an efficient cost structure are likely to be a focus in the coming year.

2011 by the numbers

Deal volumes dip amid market turmoil while values jump

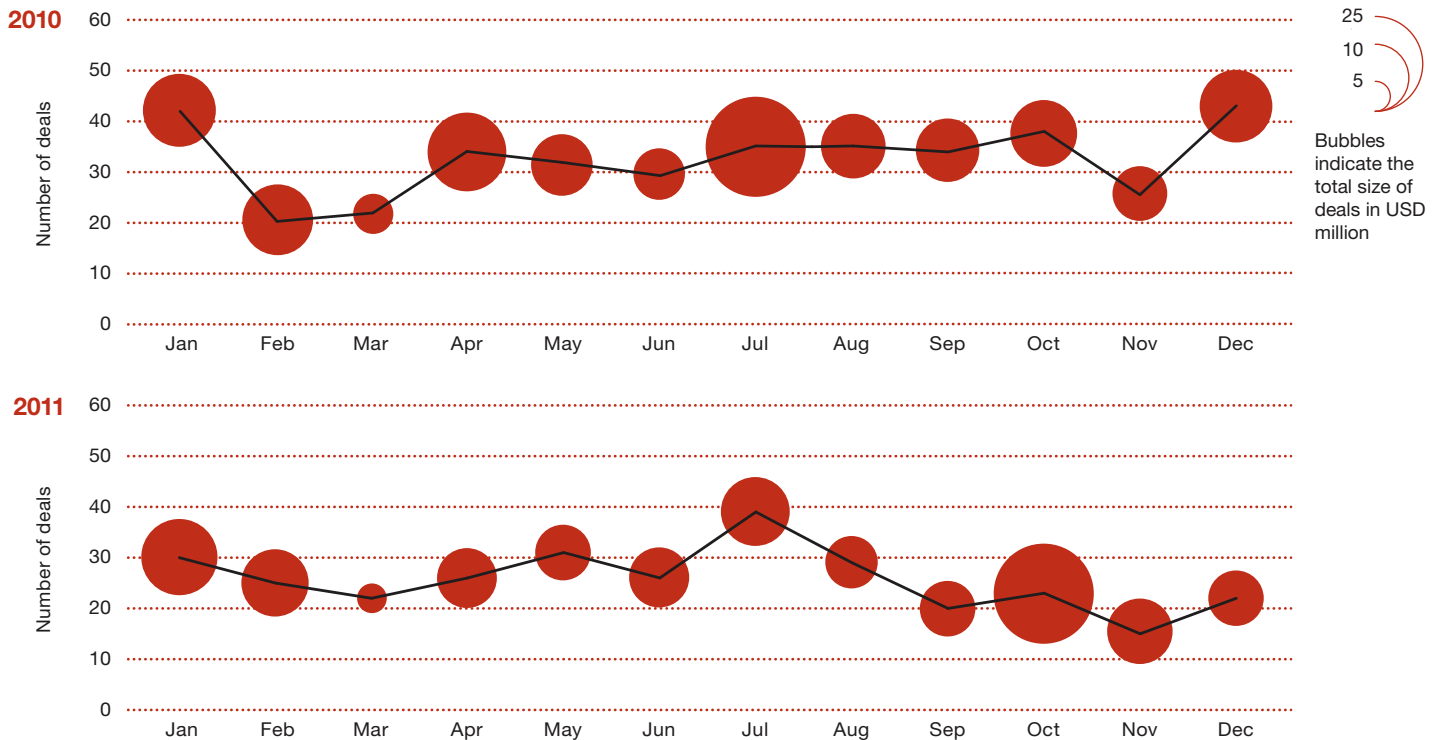
Looking back at the transaction activity in 2011, the story is somewhat mixed with total deal volume declining 21% after 2010 saw a renewed interest in deal making. Each sector saw a decline in activity, leading to the overall decrease of 82 transactions.

While middle-market transactions carried deal volume, comprising 84% of the total activity in 2011, mega-deals drove aggregate US technology deal value from \$107 billion in 2010 to \$125 billion in 2011. Although the increase in the number of deals over \$1 billion made only modest gains, increasing from 23 to 25 deals closed, total values for such transactions jumped 34% as a result of a number of deals in excess of \$5 billion. Transactions included big moves by HP

(Autonomy), Intel (McAfee), Texas Instruments (National Semiconductor), and Microsoft (Skype). On top of this, Google announced the \$12.5 billion acquisition of Motorola Mobility, which is expected to close in 2012 (thus not included in our analysis).

M&A optimism in 2010, which resulted in an average of 33 deals per month and ended the year with 43 deals closed in December alone, carried into 2011 as 30 deals closed in January. However, the decline in transaction volume was noticeable in subsequent months as 2011 closed an average of only 26 deals per month, with November dipping to 15 and December, typically a larger volume month for deals, closed only 22 deals.

US technology deals by month

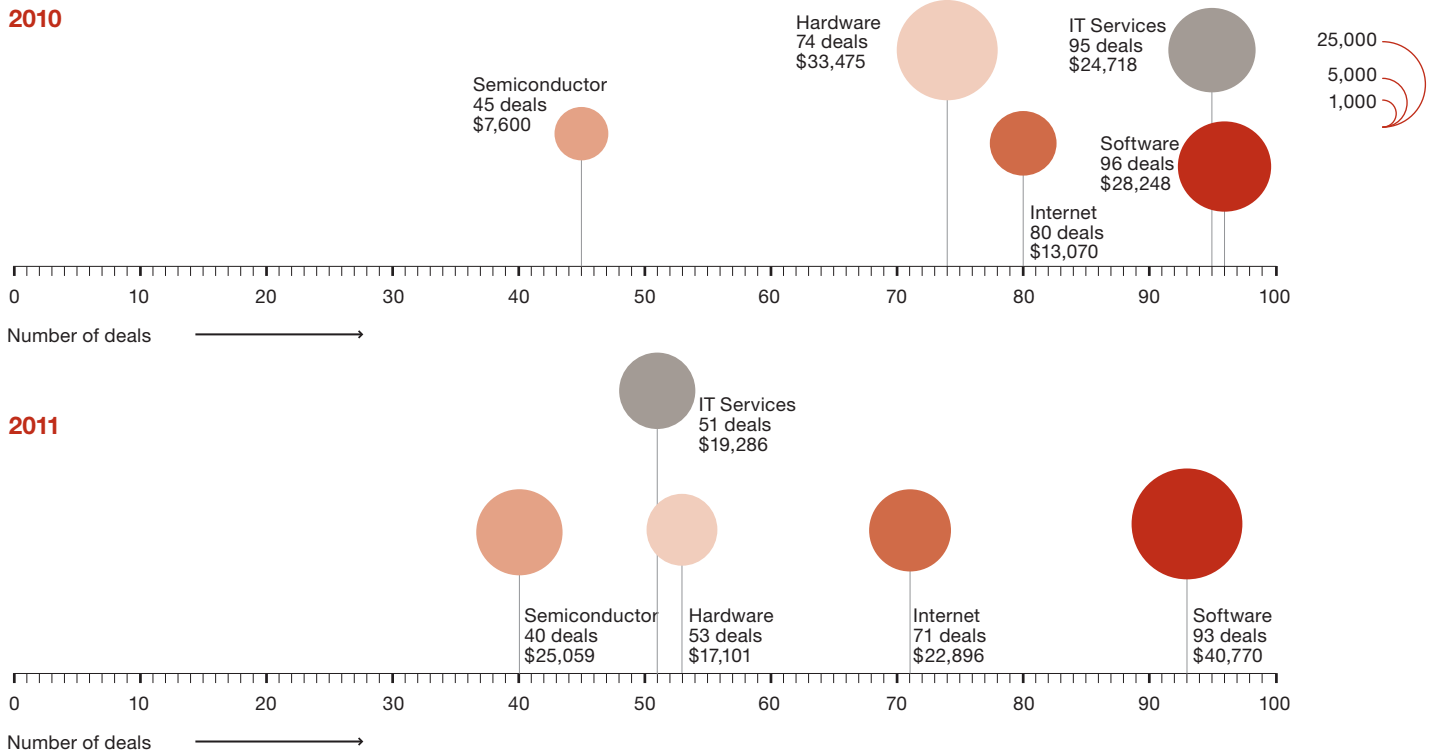


Source: Thomson Reuters

At the sector level, both hardware and IT services took steps backwards after significant gains realized in the prior year. Hardware saw the largest declines in deal value, dropping nearly 49%. Most telling was the decrease in the number of billion-dollar deals in the hardware sector, which returned to 2009 levels (three transactions) after 2010 saw 10 such transactions closed. As a result, average deal value dropped from \$452 million to \$323 million in the current year. The story is less dire for IT services; its \$5 billion decline in total value was concentrated among smaller transactions as average transaction value saw marked gains, increasing from \$260 to \$378.

Software once again remained the driving force of technology M&A values and volumes, representing 30% (93 of 308) of the deals closed and 33% of the total deal value (\$41 billion of \$125 billion). The Internet sector elevated deal values, accounting for 18% (\$23 billion) of total annual transaction value, although transaction activity dropped from the prior year, resulting in 71 deals closed in 2011 compared to 80 in 2010. Still, Internet transactions comprised 23% of total deal volume in 2011 and remained a key sector for M&A in 2011.

US technology deals by volume by sector



*excludes undisclosed & <\$15M

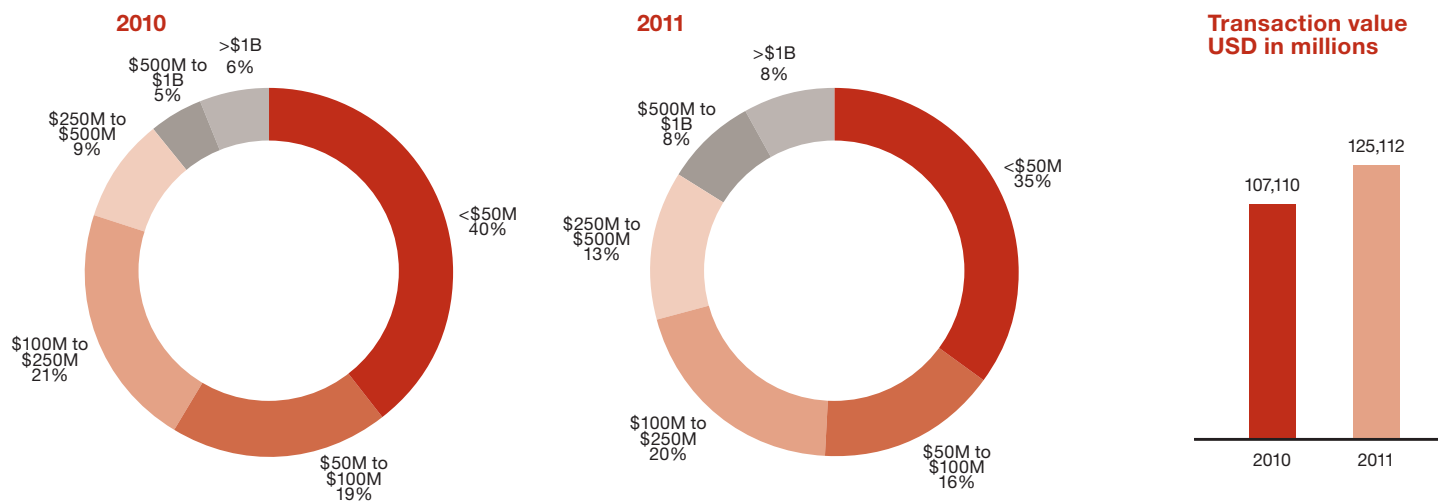
Source: Thomson Reuters

2011 by the numbers (continued)

The semiconductor sector made a triumphant return to M&A with several large transactions closed during the year, and despite a small decline in deal volumes (40 deals closed in 2011 versus 45 deals closed in 2010) comprised 20% of total deal value (\$25 billion) for the technology industry in 2011. The semiconductor sector demonstrated the biggest gains in deal value, jumping from \$8 billion in 2010 to just over \$25 billion in 2011, an increase of 230%.

While mega-deals remain scarce in comparison to prerecession M&A, and mid-market acquisitions continue to comprise the bulk of the technology M&A landscape, average deal size increased from \$275 million in 2010 to \$406 million in 2011, and technology mega-deals have been top of mind in the last half of 2011. Despite the decline in overall deal activity in 2011 compared to 2010, the last two years have seen a recovery from the doldrums of 2009 and should bring some optimism as we begin the new year.

US technology deals by volume and value



In USD million, except # of deals	2010		2011	
	Number of deals	Total deal value	Number of deals	Total deal value
< \$50M	154	\$4,373	107	\$3,042
\$50M to \$100M	75	\$5,166	50	\$3,548
\$100M to \$250M	83	\$12,761	61	\$9,665
\$250M to \$500M	36	\$12,707	41	\$13,953
\$500M to \$1B	19	\$13,263	24	\$16,310
> \$1B	23	\$58,840	25	\$78,594
Total	390	\$107,110	308	\$125,112

Source: Thomson Reuters

2011 by the numbers (continued)

Top US technology deals of 2011

	Target and its region	Bidder and its region	Acquired stake, %	Bid value (USD million)	Target business description	Completion date	Announcement date
1	Autonomy Corporation UK	Hewlett-Packard Company US	100%	\$11,364	Develops a variety of enterprise search and knowledge management applications using adaptive pattern recognition techniques centered on Bayesian inference in conjunction with traditional methods	10/3/2011	8/18/2011
2	Skype Global S.a.r.l. Luxembourg	Microsoft Corp. US	100%	\$8,500	Develops Internet-based software specializing in social and real-time communications	10/13/2011	5/10/2011
3	McAfee Inc. US	Intel Corp US	100%	\$7,643	Develops network security and management software used for anti-virus protection as well as client/server network management tools	2/28/2011	8/19/2010
4	National Semiconductor Corp. US	Texas Instruments US	100%	\$6,360	Manufactures analog and mixed-signal semiconductors, including a product portfolio featuring power management, operational and audio amplifiers, interface circuits, and data converters	9/23/2011	4/04/2011
5	Varian Semiconductor Equipment Associates, Inc. US	Applied Materials, Inc. US	100%	\$4,900	Manufactures and wholesales semiconductor processing equipment used in the fabrication of integrated circuits including ion implantation systems used to manufacture semiconductor chips	11/10/2011	5/4/2011
6	CommScope Inc. US	The Carlyle Group LLC US	100%	\$3,900	Manufactures cables, including coaxial, fiber optic, and high-performance electronic cables for communications, local area network, aerospace, and industrial applications	1/14/2011	10/25/2010
7	Atheros Communications Inc. US	Qualcomm Incorporated US	100%	\$3,100	Manufactures semiconductor system solutions for wireless and other network communications products	5/24/2011	1/5/2011
8	Emdeon Inc. US	Blackstone Group LP US	100%	\$3,000	Develops revenue and payment cycle management software, connecting payers, providers and patients in the US healthcare system	11/2/2011	8/4/2011
9	SAVVIS Inc. US	CenturyLink Inc. US	100%	\$2,846	Provides information technology infrastructure services for reducing capital expense, improving service levels, and harnessing the latest advances in cloud computing	7/15/2011	4/27/2011
10	Syniverse Technologies, Inc. US	The Carlyle Group LLC US	100%	\$2,600	Provides technology and business services for the telecommunications industry	1/13/2011	10/28/2010

Source: Thomson Reuters

Top US technology deals of 2010

	Target and its region	Bidder and its region	Acquired stake, %	Bid value (USD million)	Target business description	Completion date	Announcement date
1	Affiliated Computer Services Inc. US	Xerox Corp. US	100%	\$8,374	Provides data processing and information technology services	11/3/2009	9/21/2009
2	Sun Microsystems Inc. US	Oracle Corp. US	100%	\$7,305	Manufactures servers, computer storage equipment and desktop, develops network software, and provides information technology support and consulting services	1/27/2010	4/20/2009
3	Sybase Inc. US	SAP US	100%	\$5,959	Develops enterprise and mobile software for information management	7/29/2010	5/12/2010
4	Tandberg ASA Norway	Cisco Systems Inc. US	100%	\$3,426	Manufactures and develops videoconferencing systems and management software	4/19/2010	10/1/2009
5	Interactive Data Corp. US	Warburg Pincus LLC; Warburg Pincus Intl LLC; Silver Lake Management LLC US	100%	\$3,330	Provides financial market data, analytics services, and related solutions	7/29/2010	5/4/2010
6	3Com Corp. US	Hewlett-Packard Company US	100%	\$3,183	Manufactures converged voice and data networking products	4/12/2010	11/11/2009
7	Isilon Systems Inc. US	Warburg Pincus LLC US	100%	\$2,248	Manufactures data storage computer systems and clustered storage systems and software	12/21/2010	11/15/2010
8	Intergraph Corp. US	Hexagon AB Sweden	100%	\$2,125	Develops engineering and geospatial software	10/28/2010	7/6/2010
9	3PAR Inc. US	Hewlett-Packard Company US	100%	\$2,065	Manufactures information storage solutions	9/27/2010	8/23/2010
10	CyberSource Corp. US	Visa Inc. US	100%	\$1,964	Provides electronic payment processing services for Web, call center, and POS environments	7/21/2010	4/21/2010

Source: Thomson Reuters

Cross-border deals

Global turmoil puts a damper on cross-border deals

In a tumultuous year for international politics and a struggling global economy, 2011 cross-border deal activity decreased 21%. Despite the overall decline, outbound (i.e., US-company-acquired foreign target) deal activity increased 21% as US companies sought to capitalize on opportunities to diversify their portfolios in struggling European markets with acquisitions into Asia remaining relatively flat. Asian

acquirers, who seem to be focused on organic growth and infrastructure development, decreased investment into the United States, resulting in a decline in Asia-US acquisitions. Overall, the United States remained a net importer of deals in 2011, acquiring 74 companies at an average deal size of \$455 million, compared to 61 companies at an average deal size of \$197 million in 2010.

Top 5 cross-border technology deals of 2011

	Target and its region	Bidder and its region	Acquired stake, %	Bid value (USD million)	Target business description	Completion date	Announcement date
1	Autonomy Corporation UK	Hewlett-Packard Company US	100%	\$11,364	Develops a variety of enterprise search and knowledge management applications using adaptive pattern recognition techniques centered on Bayesian inference in conjunction with traditional methods	10/3/2011	8/18/2011
2	Skype Global S.a.r.l. Luxembourg	Microsoft Corp. US	100%	\$8,500	Develops prepackaged software specializing in social and real-time communications over the Internet	10/13/2011	5/10/2011
3	Oberthur Technologies-Card Systems and Identity Divisions France	Advent International Corp. US	90%	\$1,548	Manufactures card-based solutions, software and applications including SIM and multi-application smart cards	12/1/2011	12/1/2011
4	Samsung Electronics-HDD Business South Korea	Seagate Technology LLC US	100%	\$1,400	The Hard Disk Drive (HDD) business of Samsung Electronics Co Ltd.	12/19/2011	4/19/2011
5	Infineon Technologies AG -WLS Germany	Intel Corp. US	100%	\$1,400	Wireless solutions business of Infineon Technologies AG	1/31/2011	8/30/2011

Source: Thomson Reuters

Although 2011 deal volume declined, deal value grew 17%, largely credited to two key acquisitions: HP's \$11.4 billion acquisition of UK-based Autonomy, and Microsoft's \$8.5 billion acquisition of Skype. Although small in comparison, billion-dollar deals by Advent, Intel, and Seagate, each acquiring divisions of larger tech giants, also closed in 2011.

Resurgence of cross-border deal activity in 2012 remains dependent on the settling of market concerns in Europe. While we expect deal activity to generally increase across the board, we'll likely see well-funded US tech companies increase activity in Asia and continue to diversify across Europe.

US cross-border technology deal value

In USD million, except # of deals	2010					2011				
	Domestic	US as target	US as bidder	Net import (export)	Total	Domestic	US as target	US as bidder	Net import (export)	Total
Number of deals	271	58	61	3	390	190	44	74	30	308
Total deal value	\$85,098	\$9,978	\$12,034	\$2,055	\$107,710	\$83,697	\$7,771	\$33,654	\$25,883	\$125,112
Average deal value	\$314	\$172	\$197	685	\$275	\$441	\$177	\$455	\$863	\$406

US as a target

In USD million, except # of deals	2010					2011				
	Europe	Asia	Canada	Rest	Total	Europe	Asia	Canada	Rest	Total
Number of deals	27	18	5	8	58	24	8	9	3	44
Total deal value	\$6,402	\$1,550	\$1,276	\$749	\$9,978	\$5,094	\$847	\$1,121	\$710	\$7,771
Average deal value	\$237	\$86	\$255	\$94	\$172	\$212	\$106	\$125	\$234	\$177

US as an acquirer

In USD million, except # of deals	2010					2011				
	Europe	Asia	Canada	Rest	Total	Europe	Asia	Canada	Rest	Total
Number of deals	22	16	13	10	61	42	16	9	7	74
Total deal value	\$7,658	\$1,534	\$916	\$1,926	\$12,034	\$26,612	\$2,855	\$3,382	\$806	\$33,654
Average deal value	\$348	\$96	\$70	\$193	\$197	\$634	\$178	\$376	\$115	\$455

*Excludes deals with undisclosed values & <\$15M.

Source: Thomson Reuters

Divestitures

Divestitures rebound as deal volumes drop in the second half of 2011

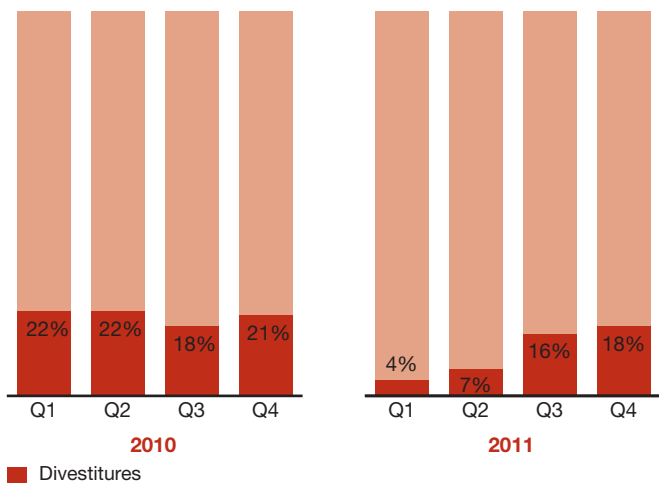
Divestiture transactions (the sale or spin-off of a piece of a company, not the entire company) followed the broader market trend, posting a decline in 2011 activity from 2010. Because many divestitures are private transactions, we track divestiture activity with both announced and unannounced values in order to have a more complete view of the industry's market activity.

The decreasing trend of technology divestitures (360 in 2010 versus 201 in 2011) seemed to buck the historical trend of rising divestitures in a decreasing deal market. However, the market saw a clear shift between the first part of 2011 compared to the second half of 2011 that is consistent with

historical market trends. Technology divestitures as a percent of total technology M&A volume dipped to 4% and 7% in the first and second quarters of 2011, respectively, as the market strengthened and resumed to historical levels of 16% and 18% in the third quarter and fourth quarter, respectively, as market activity slowed.

An additional factor potentially influencing technology deals in 2011 was the broader IPO market trends for the year. As reported in PwC's IPO Watch, IPO activity in the second half of 2011 exceeded the first half by 77%. In periods of strong IPO markets, the market tends to generate more deals involving entire companies, where as in declining IPO

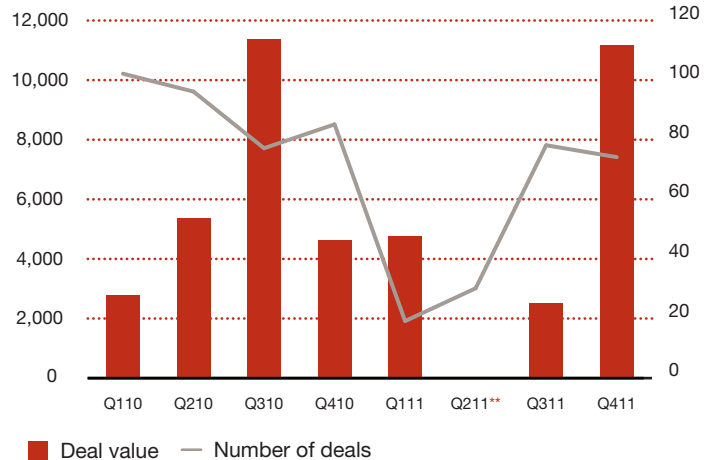
Divestitures as a % of total deal volume*



*Includes transactions with undisclosed deal values

Source: Thomson Reuters

Divestiture Volume and Value*



*Includes transactions with undisclosed deal values

**No deal values disclosed on Q211

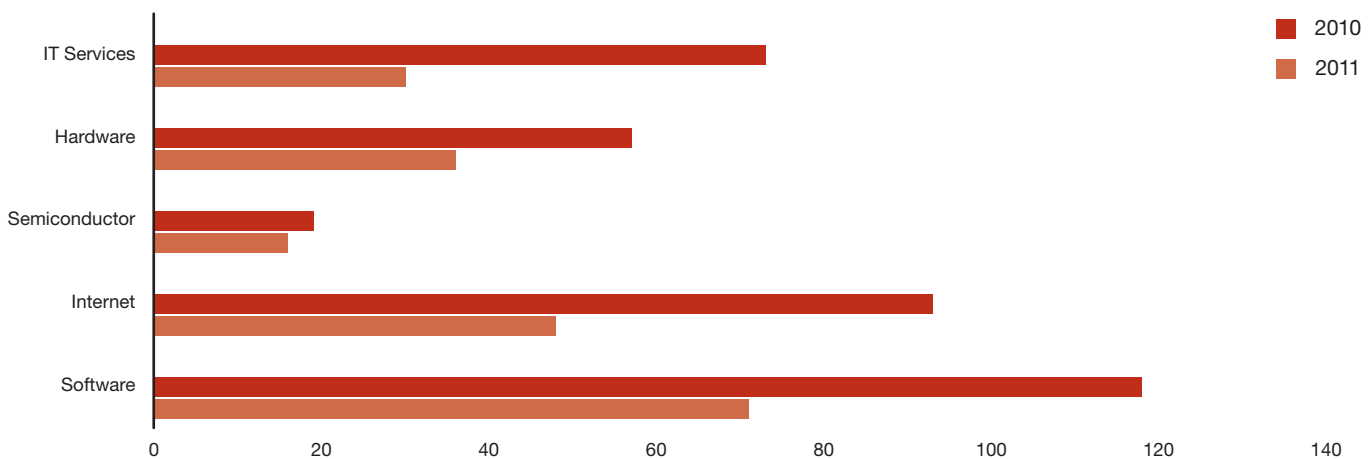
Source: Thomson Reuters

markets, strategic sales and corporate divestitures tend to increase as a relative percentage of market activity—2011 held to this historical trend.

Of particular note is the continued prominence of corporate players in the 2011 divestiture market. Divestitures involving only corporate (i.e., non-private equity) buyers and sellers constituted nine of the top 10 divestitures with disclosed deal values. Deal value of divestitures, for announced deals, in 2011 decreased from \$24.2 billion in 2010 to \$18.5 billion, and the top 10 divestitures of 2011 represented nearly 80% of this value.

All technology sectors saw a decrease in divestitures in 2011, with the largest declines in the IT Services and Internet sectors, resulting in drops of 59% and 48%, respectively. However, 2012 could see a rebound in the divestiture deal market as certain potential transactions have been publicly discussed and disclosed during 2011 but are yet to close or be confirmed and corporations look to refocus efforts on key technologies that will drive some of the core technology initiatives.

Divestiture volume by sector*



*Includes transactions with undisclosed deal values

Source: Thomson Reuters

Private equity

Private equity struggles amid a global credit crunch

Financial buyers were able to capitalize on favorable market fundamentals during the first half of 2011, with a considerable amount of cash yearning to be invested. However, this enthusiasm dwindled as access to debt dried up during the second half of the year due to a (perceived) looming US credit default, the European debt crisis, and corporate buyers with available cash moving in to fill the gap.

While private equity deal volume remained low relative to corporate activity during 2011, comprising less than 25% of total tech deals, financial buyers took advantage of the market opportunities to exit certain investments and make platform acquisitions, typically larger than the bolt-ons seen over the past several years.

Technology deals were mixed during 2011, driven by software, Internet, and IT services transactions. The largest technology transaction among private equity bidders was Carlyle's acquisition of CommScope for \$3.9 billion, a company providing cabling infrastructure to the

communications industry. In the same time frame, Carlyle also purchased Syniverse Technologies, a services solutions provider to the communications industry for \$2.6 billion. Blackstone, Golden Gate Capital, and Providence Equity Partners also made significant acquisitions during the year, but absent from these transactions were the cross-border acquisitions in Europe and other regions. Although not among the top five private equity deals during the year, also of interest was a \$1.7 billion strategy spearheaded by Apax Partners wherein the financial investor simultaneously acquired software solution companies Activant Solutions and Epicor for \$890 million and \$802 million, respectively.

As we move into 2012, dealmakers worldwide are continuing to seek ways to deploy capital. As European leaders find solutions to credit woes and US lenders ease capital restraints, 2012 should see some growth in deal activity for financial investors as they put investor capital to work in the technology industry.

Top 5 private equity technology deals of 2011

	Target and its region	Bidder and its region	Acquired stake, %	Bid value (USD million)	Target business description	Completion date	Announcement date
1	CommScope Inc. US	The Carlyle Group LLC US	100%	\$3,900	Manufactures cables, including coaxial, fiber optic and high-performance electronic cables for communications, local area network, aerospace, and industrial applications	1/14/2011	10/25/2010
2	Emdeon Inc. US	Blackstone Group LP US	100%	\$3,000	Develops revenue and payment cycle management software, connecting payers, providers, and patients in the US healthcare system	11/2/2011	8/4/2011
3	Syniverse Technologies, Inc. US	The Carlyle Group LLC US	100%	\$2,600	Provides technology and business services for the telecommunications industry	1/13/2011	10/28/2010
4	Lawson Software Inc. US	Golden Gate Capital and Infor US	100%	\$1,899	Develops enterprise planning software and solutions for the healthcare, professional services, retail, public sector, and telecommunications industries	7/6/2011	3/12/2011
5	Blackboard Inc. US	Providence Equity Partners LLC US	100%	\$1,791	Develops enterprise software used in the education industry to provide online teaching and learning environments	10/4/2011	7/1/2011

Source: Thomson Reuters

Transactions with undisclosed deal values

Growth in undisclosed transactions continues in 2011

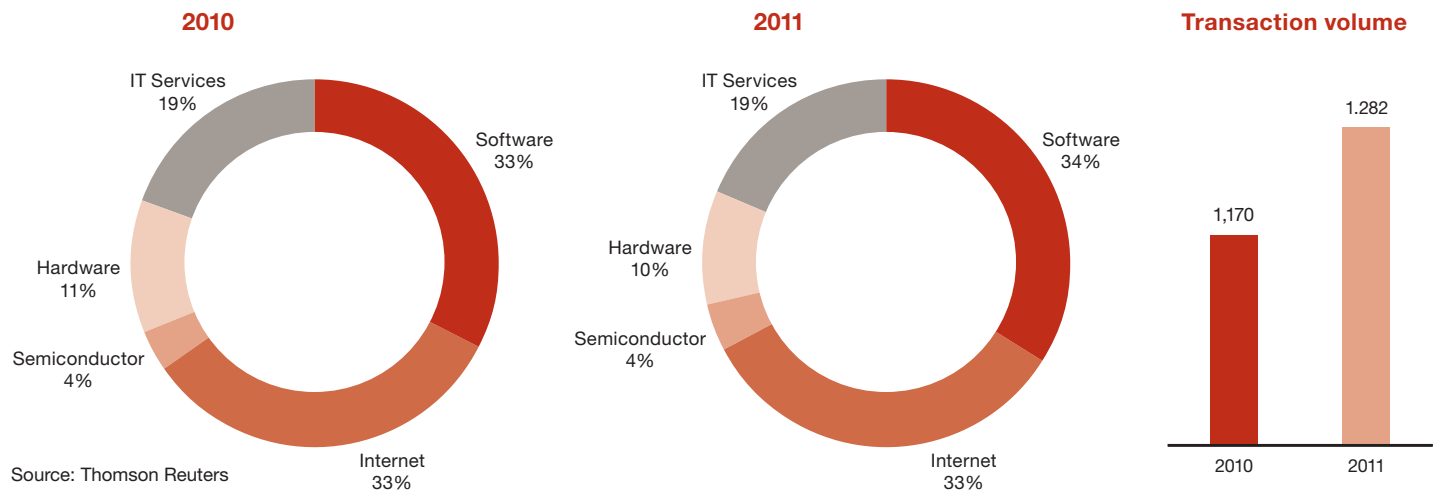
In 2011, companies disclosed the value of roughly 19% of all transactions closed during the year, a decrease from 25% disclosed in 2010. Transactions with undisclosed deal values tend to be transactions with values lower than thresholds for financial reporting disclosure by financial buyers and private equity acquirers that keep deal terms confidential.

In 2010, transactions with undisclosed values were dominated by a small group of technology companies, but 2011's undisclosed transactions were more broadly distributed with the largest contributors being private equity club deals with a total of 21 undisclosed transactions. As was the case in

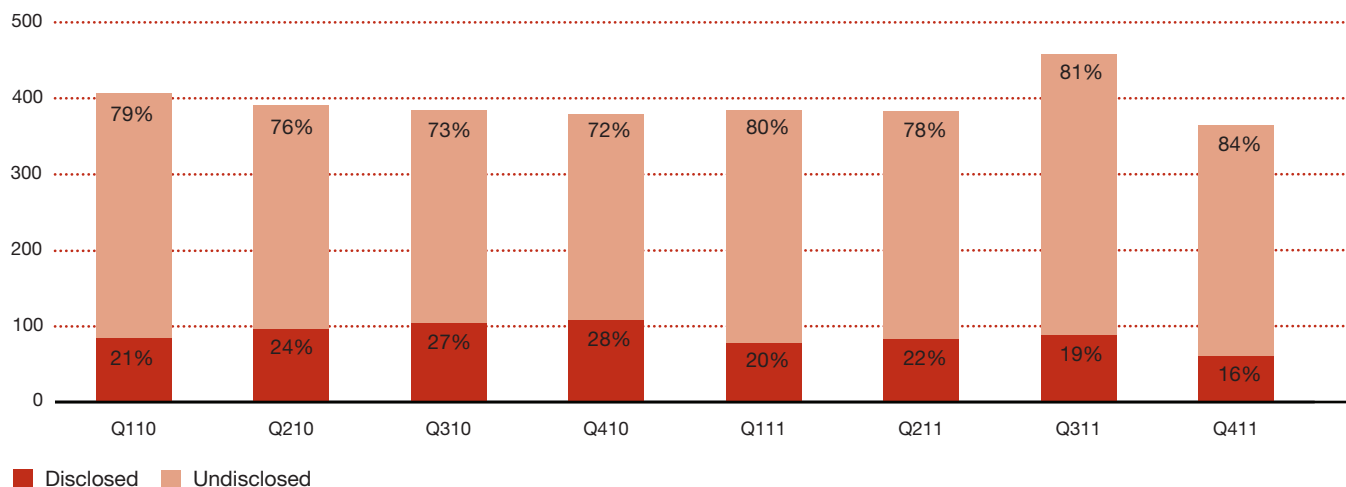
2010, Google led corporate buyers with 79 acquisitions during the year with an estimated total deal value of \$2 billion, the majority with undisclosed deal values. Other active acquirers included Thomson Reuters and Zynga, who completed at least 10 acquisitions each. Undisclosed deal volume was largely concentrated in the software and Internet sectors.

During 2012, we can expect to see a continued reticence to disclose transactions as companies struggle to maintain competitive advantage at a time of increased competition in nearly all technology sectors.

Undisclosed deals by volume



Disclosed and Undisclosed Deals Volume of transactions



Sector analyses

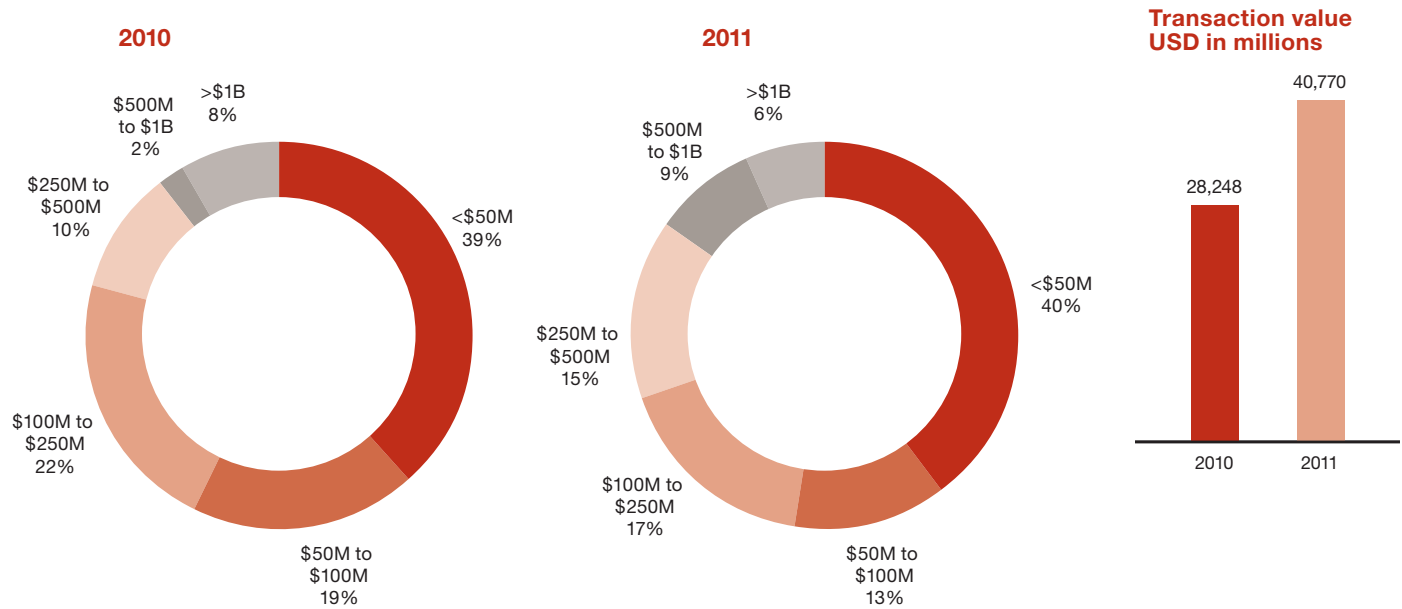
Software

Software transactions return to 2008 levels

Software deal volume started strong in 2011, particularly with the closure of large transactions like Intel-McAfee and Oracle-Art Technologies. While deal activity generally slowed during the second half of the year, deals were driven by large technology players, such as HP, Oracle, and SAP.

Historically a large driver of technology deal volume and value, the software sector continued its tenure representing 30% of deal volume and 33% of total transaction value, an increase from 25% and 26%, respectively, in 2010. With approximately \$41 billion of closed deals in the sector during 2011, software finally returned to 2008 levels.

Software sector deals by volume and value



In USD million, except # of deals	2010		2011	
	Number of deals	Total deal value	Number of deals	Total deal value
< \$50M	37	\$1,093	37	\$1,126
\$50M to \$100M	18	\$1,273	12	\$877
\$100M to \$250M	21	\$2,763	16	\$2,392
\$250M to \$500M	10	\$3,632	14	\$4,546
\$500M to \$1B	2	\$1,554	8	\$5,884
> \$1B	8	\$17,933	6	\$25,945
Total	96	\$28,248	93	\$40,770

Source: Thomson Reuters

Acquisitions during the year were widespread, from security providers to enterprise infrastructure platforms, and many smaller cloud acquisitions in between. With six billion-dollar deals closed and several more announced by year end, corporate buyers focused on executing acquisitions to solidify long-term strategic positioning. For the second year in a row, we saw average deal size in the software sector grow, from \$294 million in 2010 to \$438 million in 2011, largely bolstered by the Autonomy and McAfee acquisitions.

HP clearly topped the charts in 2011 with its \$11.4 billion acquisition of UK publicly traded Autonomy, an enterprise software infrastructure provider. Autonomy provides HP an

opportunity to position itself to expand in the data analytics space. Although not immediately considered “cloud,” the data analytics space is more powerful than ever as companies seek ways to quickly understand and design longer-term strategies around consumer adaptation of cloud offerings.

Intel followed closely behind with its \$7.7 billion acquisition of McAfee. Despite original speculation that Intel would leverage McAfee to bolster its traditional microprocessor base, the giant has announced plans to secure the cloud and the variety of non-traditional devices we now use to conduct business on a daily basis.

Top 5 software deals of 2011

	Target and its region	Bidder and its region	Acquired stake, %	Bid value (USD million)	Target business description	Completion date	Announcement date
1	Autonomy Corporation UK	Hewlett-Packard Company US	100%	\$11,364	Develops a variety of enterprise search and knowledge management applications using adaptive pattern recognition techniques centered on Bayesian inference in conjunction with traditional methods	10/3/2011	8/18/2011
2	McAfee Inc. US	Intel Corp. US	100%	\$7,643	Develops network security and management software used for anti-virus protection as well as client/server network management tools	2/28/2011	8/19/2010
3	Novell Inc. US	Attachmate Corporation US	100%	\$2,207	Develops enterprise operating systems software focused on delivering secure identity management, web services and application integration, and cross-platform networking services	4/27/2011	11/22/2010
4	Lawson Software Inc. US	Golden Gate Capital and Infor US	100%	\$1,899	Develops enterprise planning software and solutions for the healthcare, professional services, retail, public sector, and telecommunications industries	7/6/2011	3/12/2011
5	Blackboard Inc. US	Providence Equity Partners LLC US	100%	\$1,791	Develops enterprise software used in the education industry to provide online teaching and learning environments	10/4/2011	7/1/2011

Source: Thomson Reuters

Software (continued)

Financial buyers made a few big plays in the software sector during 2011. Led by Francisco Partners, Golden Gate Capital, and Thoma Bravo, the Attachmate Group acquired Novell for \$2.2 billion, following the sale of Novell patents to a consortium in 2010. Under the helm of ex-Oracle management, Infor continues to expand its ERP software revenue through its acquisition of Lawson Software for \$1.9 billion. With the addition of Lawson revenues, analysts expect Infor to become the third largest ERP software vendor behind Oracle and SAP.

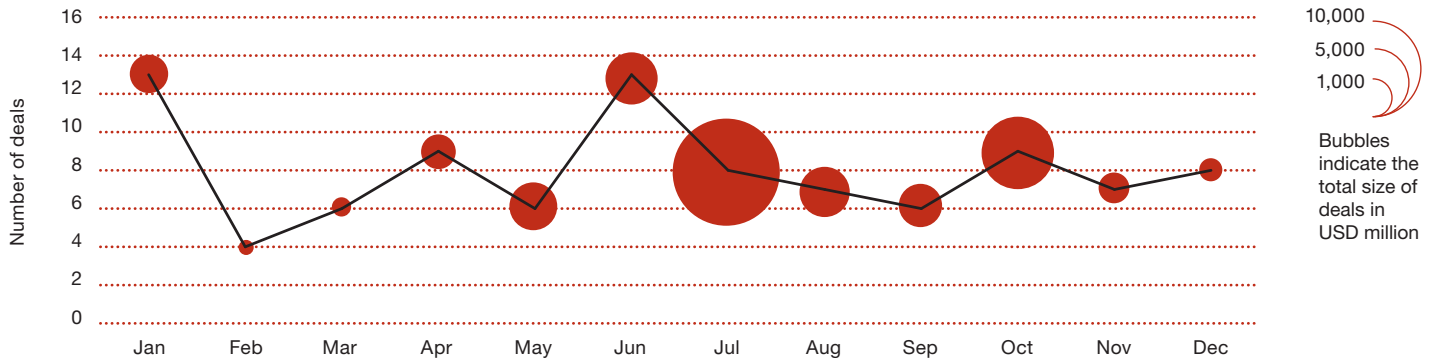
Rounding out the top five was Providence Equity Partners' \$1.8 billion "educated buy" of publically traded Blackboard Inc., a higher-education software provider. As a leading provider of software that allows schools to harness the

Internet for classroom learning, Blackboard adds to Providence's portfolio of education investments.

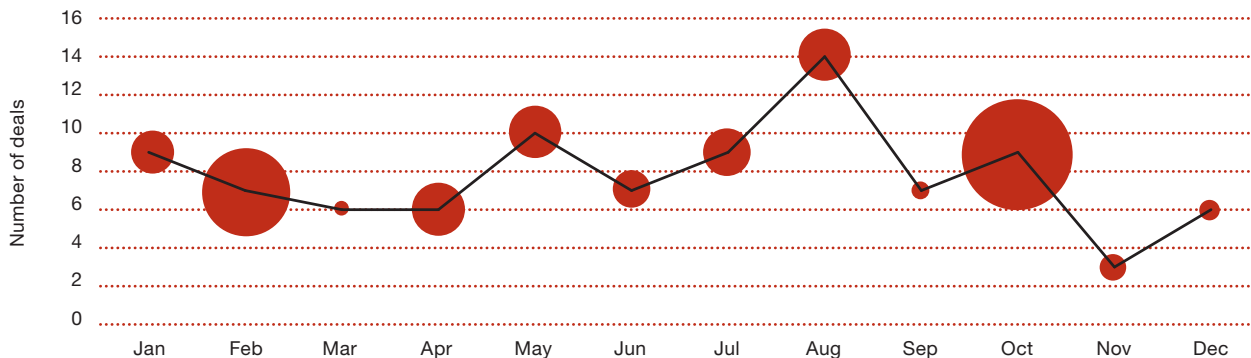
Although not yet closed, Oracle and SAP finished strong with notable announcements of their own. As software-as-a-service (SaaS) offerings continue to gain market share, Oracle announced a \$1.5 billion acquisition of RightNow, competing directly with cloud computing pioneer, Salesforce.com. Similar to other cloud-based acquisitions in 2011, Oracle recently announced its new public cloud offering and plans to leverage RightNow. SAP followed closely behind with its \$3.4 billion offer to acquire Success Factors as it jumps in the ring to become a cloud powerhouse in a quickly advancing IT environment.

Software sector deals by month

2010



2011



Source: Thomson Reuters

Software deals outlook

Not all parts of the digital transformation are equal

Aside from just being a popular buzzword, cloud computing is a digital transformation, similar to mainframes in the 1960s and client servers in the 1980s; it is a fundamental shift in the way we consume and deliver IT. Not only is the cloud redefining the way businesses are run, it provides an opportunity for new business models, larger addressable markets, and lower average costs per user. That being said, present-day software acquisitions aren't just about buying "the next big Internet-based software developer," companies are trying to anticipate how to remain a leader as consumer demands shift. One-third of Fortune 500 technology companies in the 1990s no longer exist because they failed to anticipate the extent of fundamental platform shifts.

As the cloud continues to define itself, large technology companies will continue to buy cutting-edge technology and creative human capital. CIOs are enabling employees with more purpose-built platforms with a focus on flexibility in connectivity. Delivery is shifting to service-based SaaS models, consumed using subscription and on-demand platforms. Mobile devices are becoming a priority for developers, exponentially expanding the number of users and touch points.

So what does this mean for acquisitions in the software sector? While there is no doubt that acquisitions in cloud computing software, mobile applications, and platforms for social media will remain at the forefront of software acquisitions, the two largest acquisitions of 2011 have

already paved the groundwork for related, but less obvious subsectors: big data analytics and integrated security.

Just as HP acquired Autonomy, big data analytics will become ever more critical to the present-day IT environment, as the use of mobile devices explodes and Internet users multiply daily. It is becoming more common for users to connect via social media platforms than a phone call, creating an exorbitant amount of unstructured data on a daily basis. The faster that data is analyzed, the quicker developers can go to market with high-demand products and generate revenue.

On the heels of the growth in mobile computing platforms come innovative mobile attacks, data concerns, and security risks. Just as Intel acquired McAfee to address cloud security, integrating security into cloud delivery platforms will become increasingly more relevant. Buying security for every touch point will become too costly, so companies that innovate new security solutions to secure the broader network will draw increased interest.

As we enter 2012, the cloud transformation will undoubtedly continue to evolve as companies focus on engaging customers through new interfaces and empower employees to increase productivity. As global equity markets stabilize, high-growth economies maintain pace, and technology companies maintain strong fundamentals, 2012 is ripe with opportunity for product expansion, portfolio diversification, and a chance to lay the groundwork for years to come.

As cloud services expand, big data analytics and integrated security are likely to be key to software in 2012.

Internet

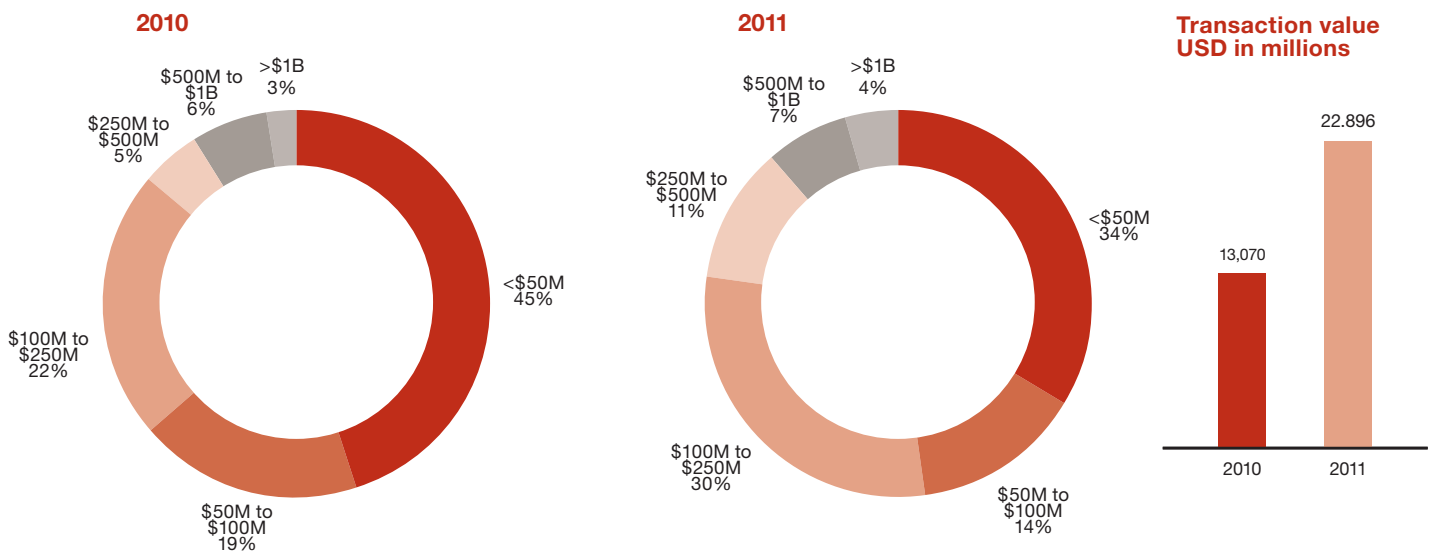
Internet deal value rises on the back of large transactions

In 2011, the volume of Internet deals held steady from 2010, but the sector was sparked by a number of significant transactions that powered an increase in aggregate sector deal value. Total deal value increased 75% from over \$13 billion in 2010 to nearly \$23 billion in 2011. While the number of deals over \$1 billion increased from two to three, with deal value bolstered by the Microsoft-Skype acquisition, overall activity was driven largely by middle-tier transactions. Sub-\$500 million transactions represented nearly 89% of

aggregate Internet deal volume in 2011. Average deal value increased from \$163 million in 2010 to \$322 million in 2011, the increase driven by primarily by the Skype and GSI Commerce acquisitions.

The Internet sector provided 23% of total deal volume and 18% of total deal value in 2011, an increase from 21% and 12%, respectively, in 2010. The increase in Internet activity is likely to continue as evidenced by the volume of acquisitions,

Internet sector deals by volume and value



In USD million, except # of deals	2010		2011	
	Number of deals	Total deal value	Number of deals	Total deal value
< \$50M	36	\$1,034	24	\$669
\$50M to \$100M	15	\$1,027	10	\$708
\$100M to \$250M	18	\$2,941	21	\$3,434
\$250M to \$500M	4	\$1,512	8	\$2,785
\$500M to \$1B	5	\$3,311	5	\$3,067
> \$1B	2	\$3,245	3	\$12,233
Total	80	\$13,070	71	\$22,896

Source: Thomson Reuters

some outside of the Internet sector. The Google-Motorola announcement, worth \$12.5 billion, is likely to signal further activity by Internet majors in 2012.

With the Internet playing an ever-increasing role as technology companies advance cloud computing platforms and social media grows into all aspects of personal and business life, we expect this sector to play a key role in driving M&A activity in the technology space.

At the top of the list in 2011 for Internet transactions was Microsoft's acquisition of Skype for \$8.5 billion. The transaction marked a rare mega-deal conducted by Microsoft, which turned out to be the company's largest ever acquisition. The software giant that swooped in to complete a transaction that should provide access to key telephony assets and know-how that analysts predict should complement Microsoft's existing portfolio of products, such as Windows Live Messenger.

Traditional dotcom players remained active in the Internet sector, as the growth in purchases from online retailers has made ecommerce one of the fastest growing industries in the United States. In this ever-competitive space, companies continue to seek new ways to bring value to consumers, none more evident than the \$2.4 billion eBay-GSI deal. In its major foray into the logistics space, eBay positions itself to integrate its industry-leading online auction marketplace platform (eBay Marketplaces) and its PayPal services with GSI's long-standing retailer and brand relationships across multiple merchandise categories.

The entertainment side of ecommerce continues to be buoyed by the emerging social gaming sector. Electronic Arts sustained this trend when it acquired PopCap Games and its portfolio of mass-market games, including popular titles such as Bejeweled and Plants vs. Zombies. With nearly \$550 million of the purchase consideration to be paid in earn-outs based on future performance milestones, it appears

Top 5 Internet deals of 2011

	Target and its region	Bidder and its region	Acquired stake, %	Bid value (USD million)	Target business description	Completion date	Announcement date
1	Skype Global S.a.r.l. Luxembourg	Microsoft Corp. US	100%	\$8,500	Develops Internet-based software specializing in social and real-time communications	10/13/2011	5/10/2011
2	GSI Commerce US	eBay Inc. US	100%	\$2,400	Creates, develops, and runs online shopping sites for brick and mortar brands and retailers	6/17/2011	3/28/2011
3	PopCap Games Inc US	Electronic Arts, Inc. US	100%	\$1,332	Develops gaming software available via Web portals, retail stores, mobile operators, and developers	8/12/2011	7/12/2011
4	Network Solutions Inc. US	Web.com Group Inc. US	100%	\$756	Offers Internet domain name registration services and Internet-based products and services	10/27/2011	8/3/2011
5	Sonic Solutions US	Rovi Corp. US	100%	\$742	Develops digital media creation, management PC, and CE software through software tools and applications for professionals, consumers, and technology partners	2/17/2011	12/22/2010

Source: Thomson Reuters

Internet (continued)

that market leaders remain bullish on the digital model of game delivery as a complement to the proliferation of mobile devices such as tablets and smart phones.

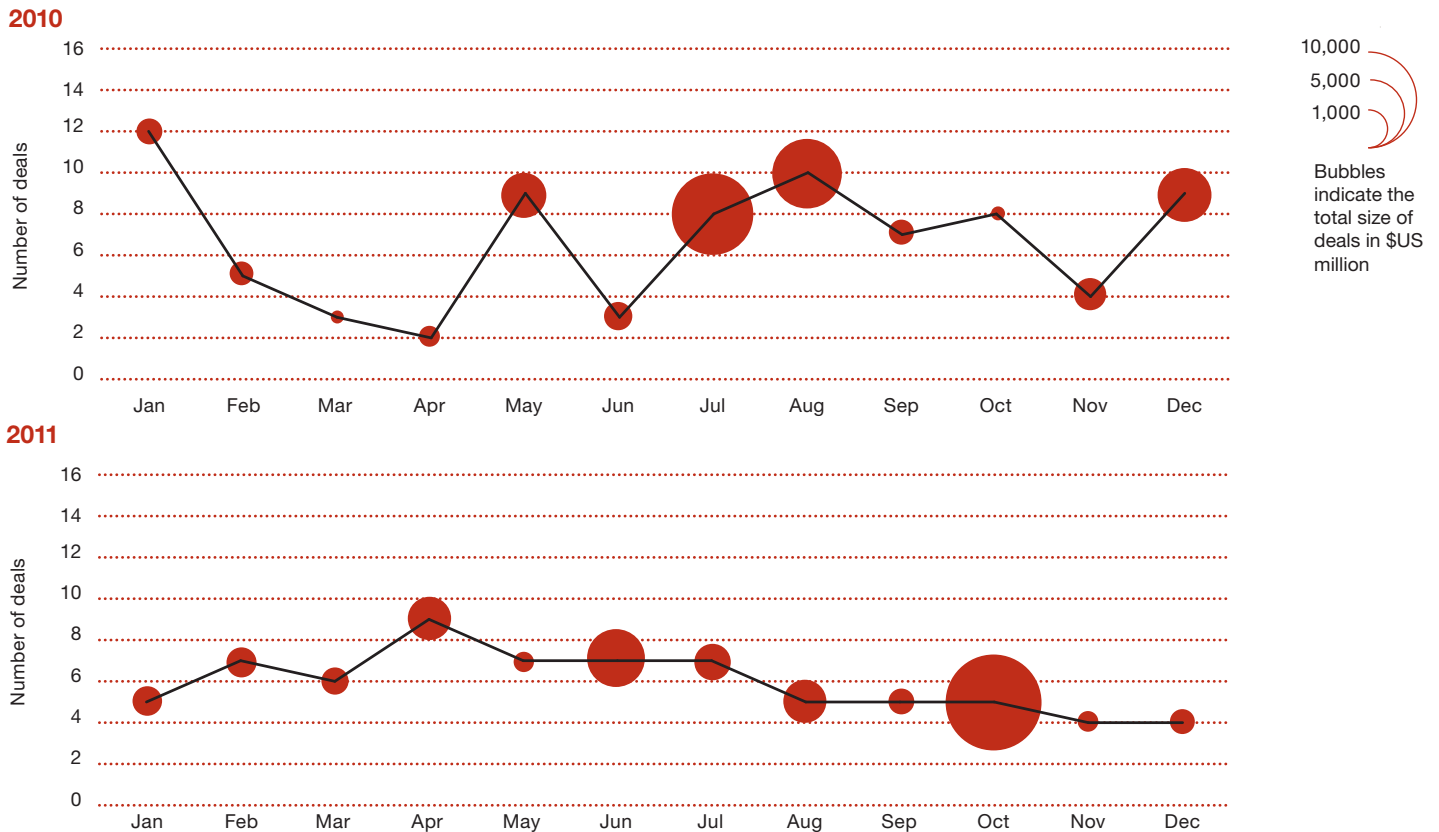
However, the digital delivery model was not limited to games. Rovi Corporation's acquisition of Sonic Solutions marries Rovi's digital entertainment technology solutions with Sonic's RoxioNow platform and its catalogue of over 10,000 movies and television programs. The acquisition allows Rovi to offer a broader range of solutions to customers in the ever-changing digital content environment.

Rounding out the top deals, the acquisition of Network Solutions by Web.com allows the do-it-yourself website design company to better compete with other domain

name enterprises. In offering small business customers a complete suite of domain, web hosting, email, and website design services, the transaction highlights the value placed on an ability to offer a host of solutions as a one-stop shop to consumers.

As deal activity remained strong, 2011 was the year of the Internet IPO. The year witnessed offerings by business-related social media site LinkedIn, online-radio company Pandora Media, and Internet coupon leader Groupon. More recently, Zynga, another online social networking gaming company, followed suit with its \$1 billion offering on the NASDAQ. Although not announced until early February 2012, the much anticipated announcement of Facebook's IPO filing bodes well for future offerings in the Internet space.

Internet sector deals by month



Source: Thomson Reuters

Internet deals outlook

Industries converge on the Internet to capture a growing number of consumers

While social media remains a major buzz word, analyst expectations remain somewhat mixed heading into the 2012. Market volatility in 2011 forced management teams to temper fundraising aspirations, and companies took note of the Zynga IPO, which closed down 5% on its first day of trading. The excitement around social media covers a variety of services, including online gaming, integrated audio and video content, location services, and multiple communication platforms. With Facebook boasting 845 million active users each month and Google+ ramping up quickly, expect social media to make deeper inroads into the business environment.

Access to media through mobile devices facilitated by cloud services will give the Internet additional momentum, particularly given the relatively low barriers to entry for Internet businesses. Recent M&A and IPO activity in the gaming space has highlighted a shift from traditional prepackaged software and console games to digital delivery methods in an “app” driven world. With the number of small shop up-starts in the gaming space gaining rapid momentum, expect future deal activity as larger gaming businesses and social media companies snatch up popular titles and monetize virtual activities.

The abundance of online activity has spurred a race among ecommerce enterprises and prompted retailers to firm up their online presence. While pacesetters like Amazon will

likely look to pick off rivals, like the Quidsi and Zappos acquisitions made the last two years, we anticipate brick and mortar companies to increase moves to strengthen their online presence. In fact, 2011 already saw such moves by retailers Nordstrom and Walgreens with acquisitions of flash sales site Hautelook and Drugstore.com, respectively.

Companies looking to affirm their online presence are eager to provide consumers with flexible payment options using online and mobile payment technologies. These systems leverage existing consumer devices and provide money management tools and cash-tracking capabilities that add a new measure of convenience to the online shopping experience. As some of the larger consumer device companies have yet to establish a robust mobile wallet, businesses with innovative technologies are likely to be targets in the coming year.

Analysts estimate the number of people currently online exceeds 2 billion, and expect the volume of online consumers to continue to grow. We expect 2012 to be another active year for the sector as companies search for the next game changer, pick off competitors, and add complementary technology. Moreover, industry lines are likely to blur as companies seek to ensure a foothold on the Internet and capture online consumers.

With a growing number of internet consumers, brick and mortar retailers are likely to make moves to increase their online presence.

Semiconductor

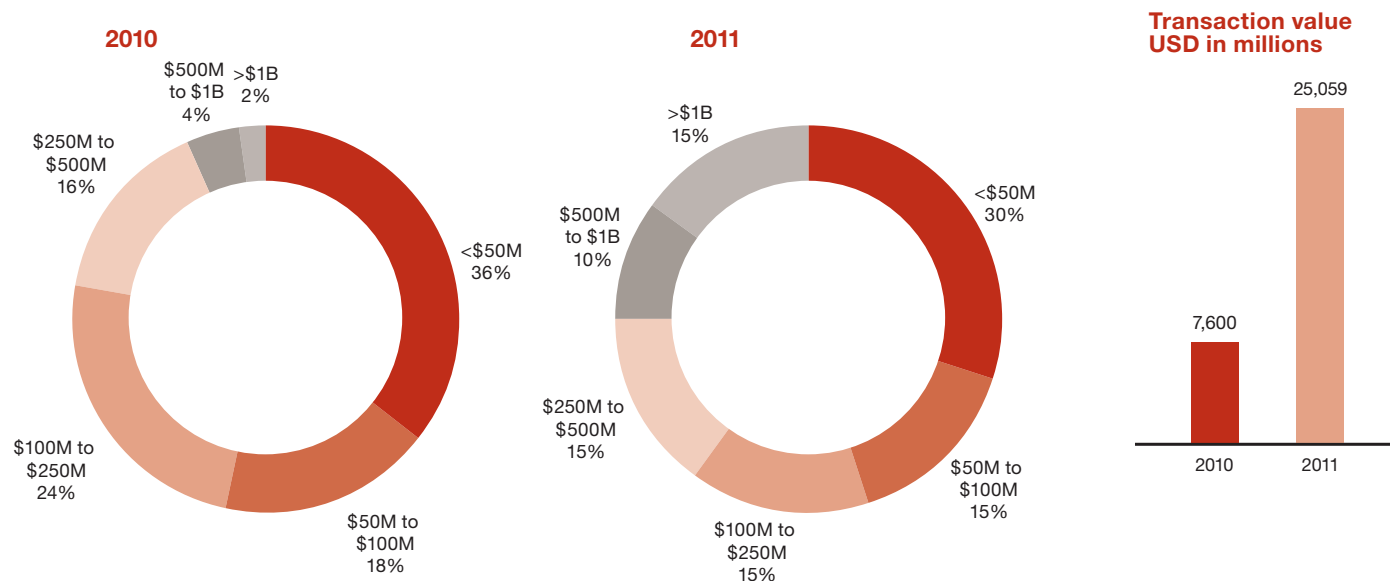
Semiconductor companies make a splash in 2011

After a banner year in 2010 for the semiconductor sector, 2011 saw industry growth dial back significantly, as customer demand declined amid global economic headwinds and businesses corrected for an oversupply of inventory built during 2010. Even with lower-than-expected growth in 2011, M&A activity reach its highest level among semiconductor companies since 2006, in terms of total deal value.

Companies looked to bolster existing product portfolios, consolidate technology platforms, and position themselves

to take advantage of future opportunities, particularly in high-growth areas like mobile devices. After years of activity being driven by mid-market acquisitions, 2011 saw the number of \$1 billion plus deals increase from 1 in 2010 to 6 in 2011, while total volume decreased from 45 to 40 closed transactions during the year. The number of billion-dollar deals increased total semiconductor deal value from \$7.6 billion in 2010 to over \$25 billion in 2011, and average deal value jumped from \$169 million to \$626 million.

Semiconductor sector deals by volume and value



In USD million, except # of deals	2010		2011	
	Number of deals	Total deal value	Number of deals	Total deal value
< \$50M	16	\$435	12	\$326
\$50M to \$100M	8	\$587	6	\$414
\$100M to \$250M	11	\$1,735	6	\$1,101
\$250M to \$500M	7	\$2,246	6	\$2,174
\$500M to \$1B	2	\$1,313	4	\$2,446
> \$1B	1	\$1,284	6	\$18,598
Total	45	\$7,600	40	\$25,059

Source: Thomson Reuters

In 2011, companies in the networking chips arena became hot commodities, as network-connected devices entering the market continue to grow, and data center and storage requirements expand to support cloud-based applications and increased data traffic. The year also saw American solar firms experience significant turmoil amid weakening demand in Europe and stiff competition from heavily subsidized Chinese firms. While the price of photovoltaic (PV) solar panels continues to drop, demand for these products has continued to increase, leading to acquisitions within the industry.

The largest acquisition in 2011 was Texas Instrument's \$6.4 billion acquisition of National Semiconductor, which combined two of the largest players in the fragmented analog chip space in an effort to drive top-line growth and consolidate operations. The transaction represents the largest deal in the semiconductor space in recent history.

The \$4.9 billion acquisition of Varian Semiconductor Equipment Associates by Applied Materials helped to shore up capacity and gain additional technology to create an industry leader in transistor technologies positioned to take advantage of growth in mobile devices that require higher-performance chips and extend battery life.

Qualcomm's \$3.1 billion acquisition of Atheros in May combined two industry leaders in the networking space and positioned the combined companies to take advantage of growth in handsets, tablets, and other medium. This trend in networking continued with Broadcom's \$3.7 billion announced acquisition of NetLogic, which filled a hole in Broadcom's product line in network processors and positioned Broadcom to take advantage of growth driven from the continued expansion of network-connected devices.

Top 5 semiconductor deals of 2011

	Target and its region	Bidder and its region	Acquired stake, %	Bid value (USD million)	Target business description	Completion date	Announcement date
1	National Semiconductor Corp. US	Texas Instruments US	100%	\$6,360	Manufactures analog and mixed-signal semiconductors, including a product portfolio featuring power management, operational and audio amplifiers, interface circuits, and data converters	9/23/2011	4/4/2011
2	Varian Semiconductor Equipment Associates, Inc. US	Applied Materials, Inc. US	100%	\$4,900	Manufactures and wholesales semiconductor processing equipment used in the fabrication of integrated circuits, including ion implantation systems used to manufacture semiconductor chips	11/10/2011	5/4/2011
3	Atheros Communications Inc. US	Qualcomm Incorporated US	100%	\$3,100	Manufactures semiconductor system solutions for wireless and other network communications products	5/24/2011	1/5/2011
4	Oberthur Technologies-Card Systems and Identity Divisions France	Advent International Corp. US	90%	\$1,548	Manufactures card-based solutions, software, and applications, including SIM and multi-application smart cards	12/1/2011	12/1/2011
5	Infineon Technologies AG-Wireless Solutions Business Germany	Intel Corp. US	100%	\$1,400	Wireless solutions business of Infineon Technologies AG	1/31/2011	8/30/2010

Source: Thomson Reuters

Semiconductor (continued)

Although not included among the top five transactions, two transactions of note that provide additional insight into movements in the semiconductor industry include Intel's acquisition of Infineon and Total's acquisition of SunPower.

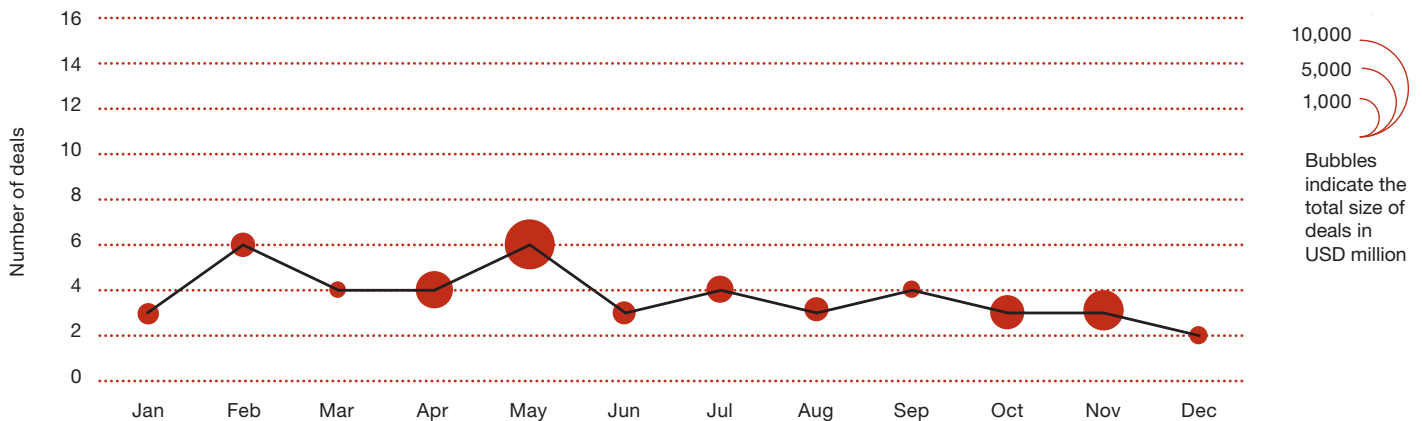
The continued growth in mobile products contributed to Intel's \$1.4 billion acquisition of Infineon Technologies, a leading provider of cellular platforms. The deal advances Intel's strategy to develop and accelerate computing platforms for mobile-connected devices.

In one of the largest green deals ever made, Total Gas and Power acquired a controlling stake in SunPower for \$1.3 billion. The deal provides SunPower with additional liquidity to increase manufacturing capabilities and fund further research, while giving Total access to the solar market.

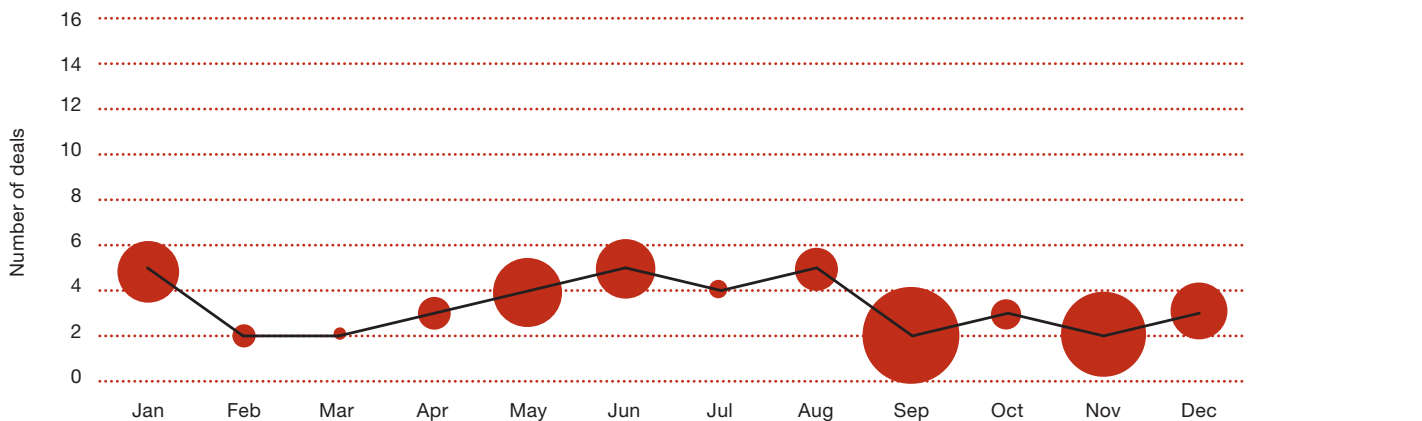
Semiconductor deals are expected to continue as Novellus Systems announced the \$3.3 billion acquisition of Lam Research Corp. in an effort to capture a larger share of the manufacturing process, and consolidate operations, while at the same time positioning it to deal with critical future technology transitions.

Semiconductor sector deals by month

2010



2011



Source: Thomson Reuters

Semiconductor deals outlook

Semiconductor growth recovers with M&A on the horizon

Although growth rates for the semiconductor sector have been impacted from economic uncertainty in 2011, industry analysts expect a slight recovery in 2012. Even amid the economic uncertainty, it is clear that the rise of tablet computing and network-connected devices has started to have a transforming impact on the semiconductor sector. Each part of the semiconductor supply chain must react to the increasing demand from consumers for network-connected devices with higher network speeds, better displays, and storage capabilities equipped to access cloud-based content.

Like other technology companies, established semiconductor businesses are faced with potential increased R&D spending to create the innovative solutions to devices designed to meet rapidly changing consumer demand, or will be forced to seek opportunities to augment existing product lines and position themselves for further technological change in the industry through acquisition. Front-end companies will continue to feel pressure as the industry moves to 20nm wafers and

450mm wafer sizes, and moves to 3d structures in logic and NAND memory. As companies grapple with these changes, look for large cash-rich players to use cash reserves built during 2010 and 2011 to take advantage of attractive price points of smaller, specialized players.

Specifically, look for further acquisitions in the networking space as large players that did not take part in the activity in 2011 refuse to be left behind. Cloud-based applications will continue to drive additional investments in networking and computing infrastructure. Mid-market semiconductor equipment manufacturers could continue to see further consolidation as larger firms will be in a better position to take advantage of the impending switch to smaller die sizes and larger wafer sizes. Activity in the solar space is expected to continue as firms take advantage of depressed valuations and American firms continue to struggle amid decreasing prices from overseas competition amid rising demand. Each of these trends signal continued acquisitions activity by semiconductor players in the year to come.

The rise of tablet computing and network devices has had a transformative effect on the semiconductor industry and is likely to generate acquisitions in 2012.

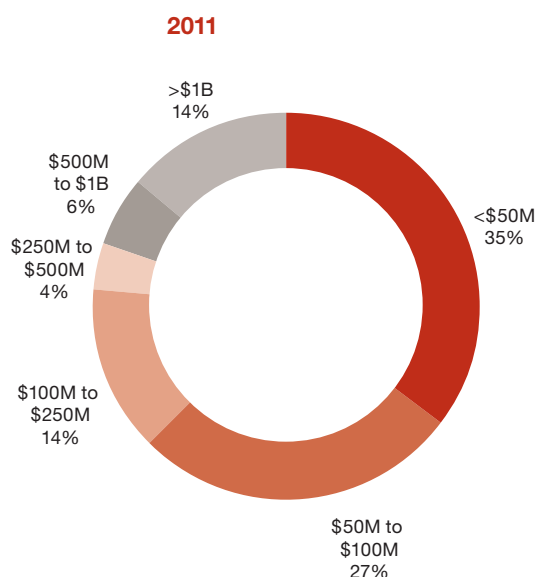
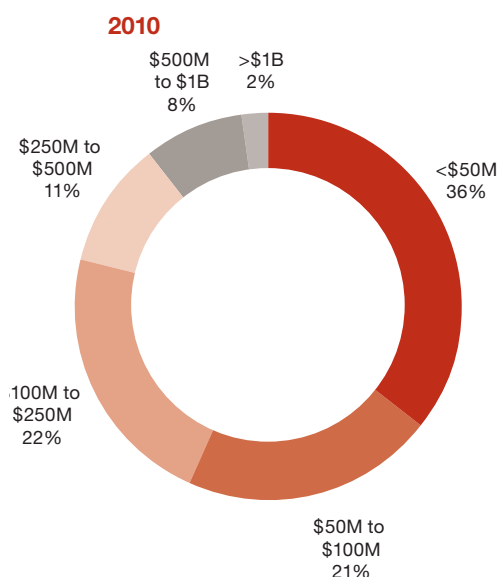
IT services

Deals activity pauses in 2011, ready for growth in 2012

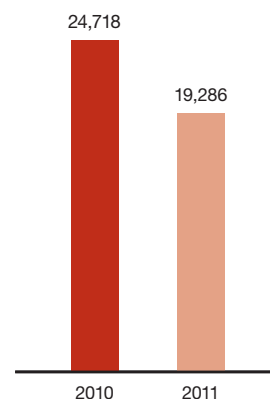
After a strong start to the year, IT service companies have found it harder to identify domestic targets with sufficient growth to support traditional motivations of improved service breadth and scale in consulting and infrastructure services. Meanwhile, the need of traditional infrastructure

providers to add cloud application, data hosting, and mobile services to their portfolios has driven high deal volumes and multiples for those companies already set up to provide these services.

IT services sector deals by volume and value



Transaction value USD in millions



In USD million, except # of deals	2010		2011	
	Number of deals	Total deal value	Number of deals	Total deal value
< \$50M	34	\$910	18	\$486
\$50M to \$100M	20	\$1,340	14	\$1,000
\$100M to \$250M	21	\$3,315	7	\$1,152
\$250M to \$500M	10	\$3,516	2	\$617
\$500M to \$1B	8	\$5,958	3	\$2,112
> \$1B	2	\$9,679	7	\$13,919
Total	95	\$24,718	51	\$19,286

Source: Thomson Reuters

Several of the largest deals of the year were take-privates in the public sector services space. Traditionally an area targeted by private equity funds, it is no surprise that funds chose to redeploy here.

The number of deals in the IT services sector dropped from 95 in 2010 to 51 in 2011, a decrease of 46%, while deal value decreased 22% to approximately \$19 billion bolstered by several acquisitions in excess of \$1 billion. Average deal size increased from \$260 million in 2010 to \$378 million in 2011 as transactions with values less than \$500 million dropped by half and the increase in large deals elevated average transaction values.

Blackstone's \$3 billion acquisition of Emdeon, a medical payments clearinghouse and medical information service provider, made the top of the list. Emdeon is no stranger to private ownership, having previously been under ownership of General Atlantic and Hellman & Friedman.

With the expected uptake of private cloud data storage and virtualization being the hot area for data and infrastructure services, two of the largest deals of the year were the attempts of major telecommunications providers to stake out space in this market as they chase AT&T's perceived lead.

Top 5 IT services deals of 2011

	Target and its region	Bidder and its region	Acquired stake, %	Bid value (USD million)	Target business description	Completion date	Announcement date
1	Emdeon Inc. US	Blackstone Group LP US	100%	\$3,000	Develops revenue and payment cycle management software, connecting payers, providers, and patients in the US healthcare system	11/2/2011	8/4/2011
2	SAVIS Inc. US	CenturyLink Inc. US	100%	\$2,846	Provides information technology infrastructure services for reducing capital expense, improving service levels, and harnessing the latest advances in cloud computing	7/15/2011	4/27/2011
3	PAETEC Holding Corp. US	Windstream Corp. US	100%	\$2,300	Provides Internet services, including local and long distance voice services, data and Internet services, software applications, network integration services, and managed services	12/1/2011	8/1/2011
4	SRA International Inc. US	Providence Equity Partners LLC US	100%	\$1,791	Provides computer programming and consulting services to clients in national security, civil government, and healthcare and public health industries	7/20/2011	4/1/2011
5	Terremark Worldwide Inc. US	Verizon Holdings Inc. US	100%	\$1,514	Provides information technology infrastructure services, including managed hosting, co-location, disaster recovery, security, data storage, and cloud computing services to government and enterprise customers	4/8/2011	1/27/2011

Source: Thomson Reuters

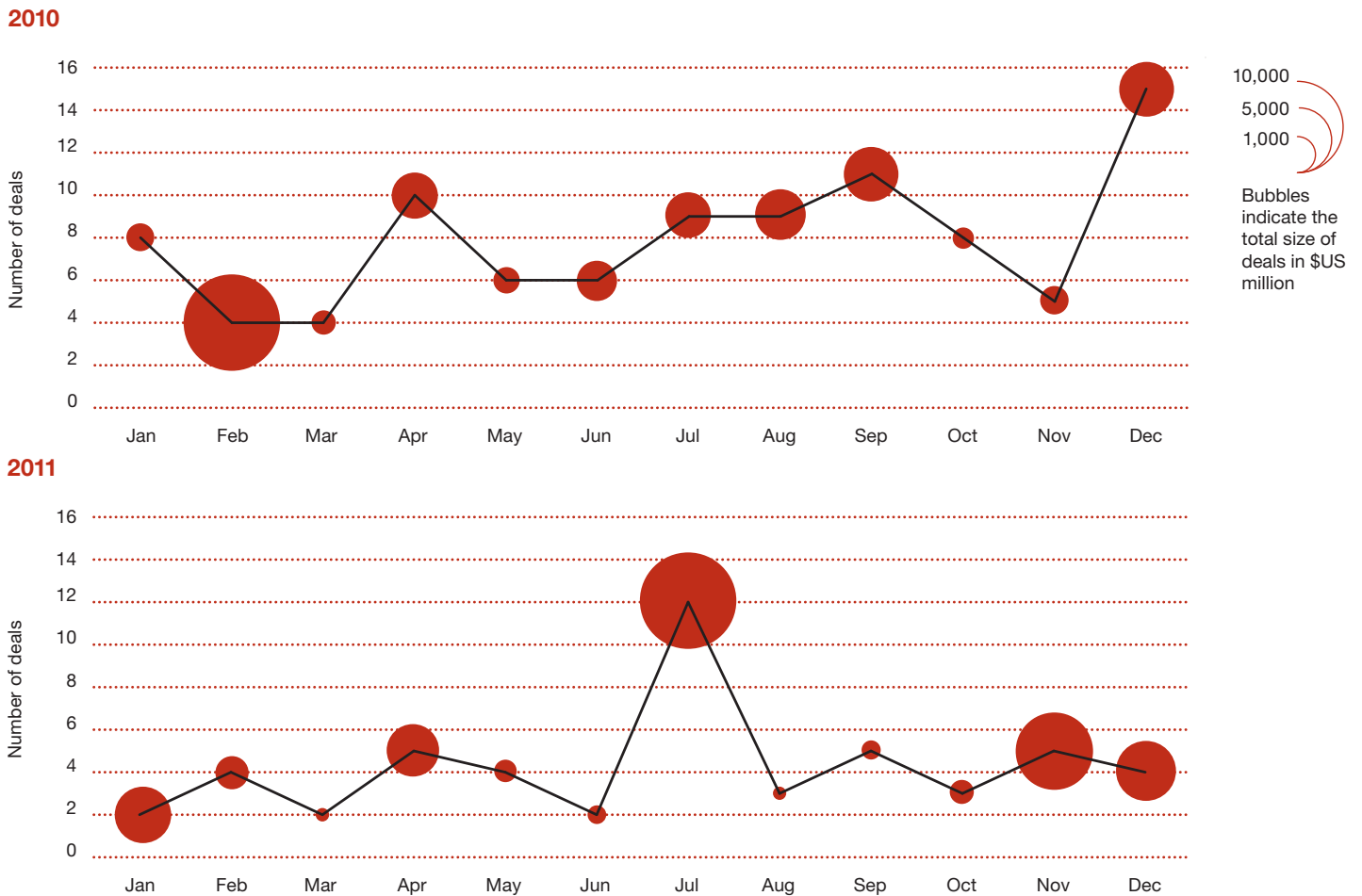
IT services (continued)

Verizon began the year by spending \$1.5 billion on Terremark, expanding into the cloud services space. Following closely behind, CenturyLink, the nation's third largest telecom provider, acquired an infrastructure and cloud hosting provider, SAVVIS, for \$2.8 billion in July. Closing out the year, Windstream Corp. continued its reputation for acquisitive expansion with its \$2.3 billion purchase of PAETEC, also bolstering its cloud hosting and managed services portfolio. Last but not least, Providence Equity Partners paid \$1.8 billion for SRA International, a

provider of technology consulting and services to defense, intelligence, and other government agencies.

Overall, there has been a significant decline in deals in the IT services space, which could position the sector for a rebound in M&A activity in 2012. Traditionally a strong contributor to deal volumes (IT services comprised 24% of deal volume in 2010), the sector will demonstrate in 2012 if it can keep pace with software and Internet businesses that continue to rapidly expand via M&A transactions.

IT Services sector deals by month



Source: Thomson Reuters

IT services deals outlook

IT services businesses provide high-margin opportunities for technology businesses

With overall IT spend growth slowing in the face of renewed economic uncertainty, but cloud and application hosting remaining two of the fastest growing areas of spend, there are now two speeds of growth across the IT services sector.

As we move into 2012, the upcoming elections will increase uncertainty in military, healthcare, and other government-focused services. While this may cause increased temporary risks and perhaps nudge companies to put more risky transactions on hold, we would expect continued sector growth as tensions begin to ease.

Corporate deals will largely be middle-market portfolio-building acquisitions, as established players continue to seek cross-selling opportunities and expertise in new technologies. In particular, the few companies providing both a comprehensive combination of mobile and cloud services are going to have an early lead. Several commentators predict that patterns of mobile work platforms will be the trigger for chief technology officers (CTOs) to accelerate migrations to cloud solutions, increasing the opportunity for niche providers. On the other hand, while data, application services, and consulting markets all remain relatively fragmented within the United States, it will be harder to find participants sustaining enough growth to be attractive targets for scale-building.

Stifled by difficulties with organically expanding into the fast-growing Asian markets, US service providers are likely to turn to local providers in Asia, where the benefit from local expertise remains at a premium. While perhaps more difficult to identify, services opportunities with a good fit will require more up-front evaluation, but remain highly valued.

Whether due to economic constraints curtailing innovation, cut-throat competition damaging pricing, or failure to cross-sell service portfolios, mid-tier companies are likely to come under pressure for sale as they struggle to compete. Such conditions may feed opportunities for turnaround cases and drive the bolt-on acquisitions at attractive valuations that we saw lacking in 2011's financial buyer deal activity.

This year is set to be an exciting one for IT services. With many participants re-evaluating their strategies and large players still with cash to burn, we expect 2012 to be a year of bold steps. With innovation and new business models on the forefront of strategic interests, we anticipate increased activity in middle-tier transactions for its services. Finally, as US companies look to accelerate expansion and gain a foothold in emerging markets, expect increased activity in both Latin America and Asia.

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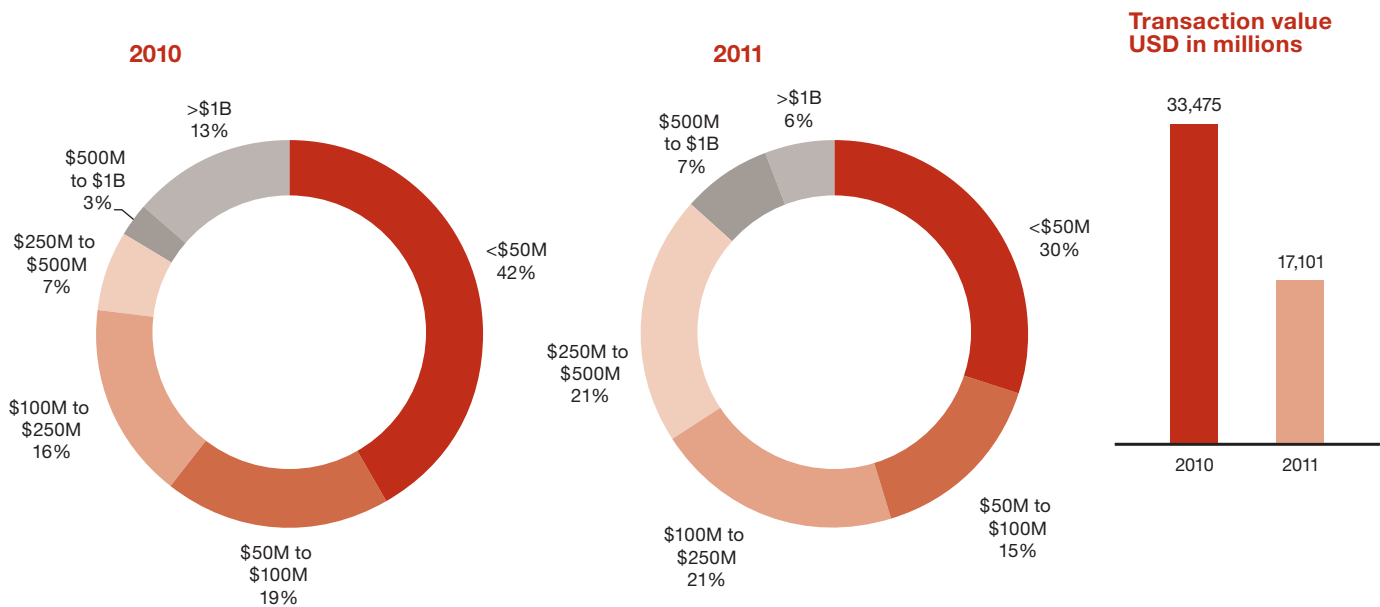
Hardware and networking

Hardware providers sit this one out as private equity drive M&A

After the hardware and networking industry's banner year in 2010 driven by significant acquisitions by market leaders such as Oracle, Cisco, and Hewlett-Packard, the volume of mergers and acquisitions decreased nearly 30% in 2011. Hardware and networking deal values started strong in

January driven by the closure of two significant buyouts exceeding \$2.0 billion by the Carlyle Group. The sector experienced a general slowdown in M&A activity progressing through the year with a limited number of transactions greater than \$500 million each quarter.

Hardware and networking sector deals by volume and value



In USD million, except # of deals	2010		2011	
	Number of deals	Total deal value	Number of deals	Total deal value
< \$50M	31	\$901	16	\$435
\$50M to \$100M	14	\$938	8	\$550
\$100M to \$250M	12	\$2,007	11	\$1,586
\$250M to \$500M	5	\$1,801	11	\$3,830
\$500M to \$1B	2	\$1,127	4	\$2,800
> \$1B	10	\$26,701	3	\$7,900
Total	74	\$33,475	53	\$17,101

Source: Thomson Reuters

With \$17.1 billion in total transaction value in 2011, nearly half the value generated in 2010 (\$33.5 billion), the hardware and networking sector experienced a return to prerecession levels. Acquisitions were focused on companies with data storage technology, wireless network, and data transmission infrastructure. Average transaction value fell from \$452 million in 2010 to \$323 million in 2011 driven by fewer billion-dollar acquisitions (three in 2011 versus 10 in 2010) as the industry leaders focused on offerings with higher margins such as software and IT services.

The Carlyle Group's leveraged buyout of fiber optic and wireless telecommunications equipment manufacturer

CommScope for approximately \$3.9 billion marked the largest M&A transaction of 2011 in the hardware and networking sector. The CommScope acquisition provides Carlyle an opportunity to capitalize on fourth-generation network capacity build-outs currently taking place in the telecommunications industry in order to accommodate increasing amounts of video and data consumption.

The Carlyle Group also acquired Syniverse Technologies for \$2.6 billion in January, further solidifying its position in the telecommunications infrastructure market. Syniverse provides mobile roaming, messaging, and network technology to mobile operators, cable, and Internet providers.

Top 5 hardware and networking deals of 2011

	Target and its region	Bidder and its region	Acquired stake, %	Bid value (USD million)	Target business description	Completion date	Announcement date
1	CommScope Inc. US	The Carlyle Group LLC US	100%	\$3,900	Manufactures coaxial, fiber optic and high-performance electronic cables for communications, local area network, aerospace, and industrial applications	1/14/2011	10/25/2010
2	Syniverse Technologies, Inc. US	The Carlyle Group LLC US	100%	\$2,600	Provides technology and business services for the telecommunications industry	1/13/2011	10/28/2010
3	Samsung Electronics-HDD Business South Korea	Seagate Technology LLC US	100%	\$1,400	The hard disk drive (HDD) business of Samsung Electronics Co Ltd.	12/19/2011	4/19/2011
4	Motorola Solutions-Wireless Network Infrastructure Assets US	Nokia Siemens Networks BV Netherlands	100%	\$975	The wireless network infrastructure assets of Motorola Solutions, Inc.	4/29/2011	7/19/2010
5	Souriau Holding SAS France	Esterline Technologies Corp. US	100%	\$705	Manufactures and wholesales electrical connectors for the military, aerospace industry, heavy industry (railway & mass transit, nuclear, oil & gas), and industrial equipment markets	7/26/2011	5/4/2011

Source: Thomson Reuters

Hardware and networking (continued)

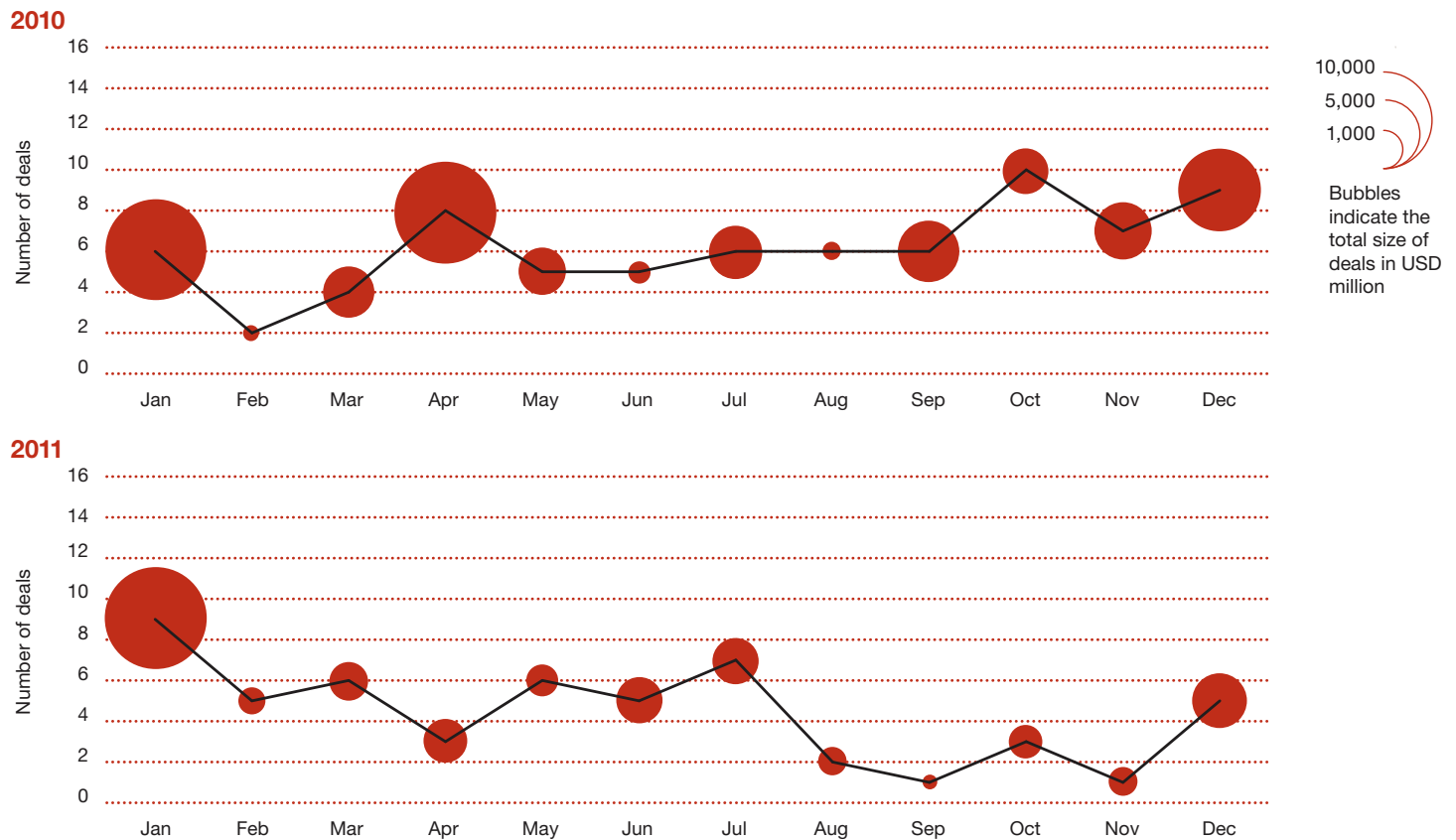
As Carlyle focused on back-to-basics infrastructure acquisitions during 2011, Seagate Technology acquired elements of Samsung Electronic's hard disk drive business for approximately \$1.5 billion, providing it with next-generation data storage technology. Seagate gained parts of Samsung's hard disk drive business, including the new high-capacity M8 product line, solid-state drive, and flash memory (NAND) technologies. This acquisition will allow Seagate to align its product development with rapidly evolving opportunities in many markets, including mobile computing, cloud computing, and solid state storage.

After extended anti-trust delays and legal proceedings in China, Nokia Siemens closed its acquisition of Motorola

Solutions' wireless network equipment division for approximately \$1.0 billion. The acquisition provides Nokia with Motorola's GSM, CDMA, WCDMA, WiMAX, and LTE products; research and development facilities; and significant customer relationships. With the addition of Motorola's network assets, Nokia has become the third largest wireless infrastructure vendor in the United States and the largest non-domestic wireless vendor in Japan.

The fifth largest transaction of the year was completed by Esterline Technologies when it acquired France-based Souriau Group for \$705 million. Souriau adds to Esterline's customer base and manufacturing capabilities in a highly specialized connectors market.

Hardware and networking sector deals by month



Source: Thomson Reuters

Hardware and networking deals outlook

A return to form as convergence deals regain momentum

Increased global competition and a growing array of competing technologies in the hardware and networking industry has caused significant pressure on businesses as they strain to maintain profitability. Forrester and Gartner have both lowered IT spend forecasts for 2012, negatively impacting hardware and networking enterprise growth prospects for the coming year. Hardware and networking enterprises can be expected to explore new technologies in 2012 to regain profit margin and meet growth targets. The attractiveness of high-margin complementary offerings in the software and IT services space will continue to blur the lines between sectors as hardware companies look to these sectors to improve margins. This is likely to continue to drive acquisitions of smaller companies with expertise in research and development and new technologies such as next-generation solid-state drives and flash memory.

In addition, with announcements by some of the blue chip technology companies of developed or planned full-service cloud offerings in 2011, expect middle-tier hardware and networking businesses to follow suit. This could spur deal activity in 2012 as they seek to build out their hardware and service offerings in the cloud space.

The consumer market may also help drive M&A activity in the hardware and networking sector. If the economy stabilizes and improves in 2012, consumers with additional discretionary income will increase spending on next-generation luxury devices such as smartphones and tablet computers. Additionally, cable television providers will continue to offer more data-intensive offerings in order to stay competitive. Strain imposed on the current network infrastructure by the amplified transfer of images and data arising from enterprise cloud computing and consumers will encourage service providers to invest in new fiber optic and wireless network technologies such as 4G and LTE network infrastructures.

Although hardware and networking companies face challenges, 2012 should see additional investment by these companies in new technologies to support network infrastructure improvement as well as developments in other technology sectors such as software and IT services, which rely on infrastructure to deliver their services. Such activities are likely to spur M&A efforts in the coming year.

Hardware and networking enterprises can be expected to explore new technologies in 2012 to regain profit margin and meet growth targets.

About the data

We define M&A activity as mergers and acquisitions where targets are US-based companies acquired by US or foreign acquirers or foreign targets acquired by US technology companies. We define divestitures as the sale of a portion of a company (not a whole entity) by a US-based seller.

We have based our findings on data provided by industry-recognized sources. Specifically, values and volumes used throughout this report are based on completion date data for transactions with a disclosed deal value greater than \$15 million, as provided by Thomson Reuters as of December 31, 2011, and supplemented by additional independent research. Information related to previous periods is updated periodically based on new data collected by Thomson

Reuters for deals closed during previous periods but not reflected in previous data sets.

Because many technology companies overlap multiple sectors, we believe that the trends within the sectors discussed herein are applicable to others as well. Technology sectors used in this report were developed using NAIC codes, with the semiconductor sector being extracted from semiconductor and other electronic component manufacturing codes by reference to SIC codes. In certain cases, we have reclassified deals regardless of their NAIC or SIC codes to better reflect the nature of the related transaction.

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