Global Technology M&A Trends and Analysis – 1H 2015

July 2015
Software Industry Landscape

**Internet Software**
- Geeknet
- Coupons
- Google
- Facebook
- Twitter
- Demand Media
- TELNAV
- LinkedIn
- Yahoo!
- Renren
- QuinStreet
- ClickSoftware
- Akamai
- Netflix
- Tencent

**Online Services**
- Ppapay.com
- AOL
- News
- Equinix
- Equinix
- Billag
- SECPay
- eBay
- IAC
- Oasis
- UniNet
- Research
- UniNet
- Aliababa.com

**Systems Software**
- Microsoft
- Oracle
- Raytheon
- Pikewerks
- Nintex
- Barra
- Gemalto
- Synopsys
- Tata Consultancy Services
- Accenture
- Ericsson

**Application Software**
- SAP
- Citrix
- Oracle
- Synopsys
- Intenda
- Intuit
- Cerner
- Avaya
- HP
- Cognizant
- Wipro

**IT services**
- IBM
- HP
- Temenos
- CA
- IXIA
- Sage
- eClinicalWorks
- Microsoft
- SAS
- Infosys
- Fujitsu
Hardware Industry Landscape

Communications Equipment
- Nokia
- ZTE
- Solaris
- Finisar
- Motorola Solutions
- Arris
- Harris
- Juniper
- IHS
- tait
- Gionee
- Compro
- Infineon
- Inphi
- PMC Sierra
- SCSconnect
- Cisco
- Qualcomm
- Ericsson
- Alcatel-Lucent

Electronic Equipment, Instruments & Components
- Kyocera
- Innolux
- Te Connectivity
- Flextronics
- Samsung
- Jabil
- TDK
- Corning
- ABB
- Schneider Electric
- Eaton
- Emerson
- JDSU
- Johnson Controls
- Omron
- LG Display
- Avago Technologies
- Sanmina
- Oclaro
- Foxconn
- Hitachi
- Maruwa
- AUO
- JDSU Japan Display Inc.

Technology Hardware, Storage & Peripherals
- Apple
- Samsung
- HP
- Intel
- TSMC
- Micron
- Pegatron
- Lenovo
- Canon
- Texas Instruments
- SK Hynix
- Applied Materials
- Quanta Computer
- Compal
- EMC
- Ase Group
- Broadcom
- STMicroelectronics
- CDW
- Datatec
- GoPro
- Canasil

Semiconductors & Semiconductor Equipment
- Broadcom
- ASML
- Renesas
- ASE Group
- MediTek
- Microchip
- Mellanox
- AMETEK
- VST Digital China
- Synnex
- Arrow
- WPG
- ALSO
- Synnex

Technology Distributors
- Ingram Micro
- Avnet
- Tech Data
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Executive Summary

Technology Trends

- Global digital ad tech spending is forecasted to reach US$253.0 Bn by 2018 with an estimated 36.6% share in media ad spending; Mobile Internet ad spending will dominate digital ad spending.
- Mobile Internet ad spending will continue to have the biggest share in US digital ad spending; digital video ad spending share is set to increase to 15.5% of digital spending by 2018.
- Rise in associated loss due to data breach incidents has led to increases in spending by the US government on cyber security; cyber security market is expected to reach US$155 Bn by 2019.
- Global wearable technology shipments, including fitness devices, is expected to reach 126.1 Mn in 2019 from 19.6 Mn in 2014.
- Smart homes market is estimated to be the largest market within smart cities, constituting 26.6% share in 2017; IoT market to accelerate to US$7.1 Tn by 2020 and IoT-enabled devices to represent 50% of global connected devices by 2020, driven by low component cost and need for connectivity.
- Global e-commerce and m-commerce markets are forecast to reach US$1.3 Tn and US$626 Bn, respectively by 2018, led by rapid smartphone adoption and internet penetration; US e-commerce and m-commerce markets to reach US$491.5 Bn and US$132.7 Bn, respectively in 2018.
- Global semiconductor market to reach US$369.6 Bn by 2017, driven by integrated circuits segment; Asia-Pacific region continue to be the largest and fastest growing market.

Technology Industry Outlook

- Growth in digital ad tech sector, driven by programmatic marketing platform, real-time-bidding, and mobile ad growth, expected to lead to increased M&A activity during the next 12 months.
- Enterprises seeking technology innovations to reduce business vulnerability and threats from emerging finance solutions are likely to increase M&A activities.
- The need to establish presence in the sector and the growing demand for smart mobility with decline in hardware costs to drive deal activity in IoT sector.
- Consolidation among players, omni-channel capabilities and need to build supply chain to drive M&A in e-commerce space in 2015.
- In 2015, M&A activity in semiconductor sector continues to be fuelled by shift from PCs to mobiles, new technologies that improve connectivity and functionality.
- Demand for analytics and low-cost architecture is expected to drive M&A activity in HR technologies and smart storage solutions.
Global M&A activity in 2015 is expected to continue the robust deal activity experienced in 2014; Deal value surges in the first two months of Q2 2015

Global mid-market deal volume and value surge in Q1 2015 after a subdued previous quarter; US mid-market deal value driven by few major deals in Q1 2015

Global average transaction size surges in Q1 2015 over Q4 2014; Mid market deals rise in Q1 2015; Mega deals drive transaction value in the first two months of Q2 2015

US average transaction size trend upwards for all size segments in Q1 2015; First two months of Q2 2015 witnesses robust increase in deal value led by mega deals

Global M&A activity remained robust in 2014, with high deal volume and average transaction size; Momentum is expected to continue in 2015 with increasing average transaction size

Globally, online services and application software experience the largest M&A activity among the software sub-sectors, accounting for over 85% of deal volume in Q1 2015

M&A activity in software industry is led by online services and application software sub-sectors in US, accounting for over 87% of deal volume in Q1 2015

Strategic buyers dominate the global and US M&A activity in the software industry; over 95% of acquisitions have been made by strategic buyers

US and Canada accounts for nearly half of global M&A activity in software industry, followed by Europe

Global and US M&A transactions marked by higher purchase price multiples in Q1 2015 compared to Q1 2014

Cross-border M&A accounts for nearly one-fourth of global transactions; cross-border deal value at three-year high in the first two months of Q2 2015

US buyers have acquired more software companies outside the US than non-US buyers have acquired in the US; both inbound and outbound M&A activity remain buoyant in Q2 2015

Yahoo, Google and Twitter have been the most active recent acquirers in the software industry
Executive Summary

Hardware Industry: M&A Activity

- Global hardware industry M&A activity registered strong growth in first five months of 2015; deal value highest in three years
- The number of deals below US$50 Mn and above US$500 Mn increased in Q1 2015 over Q4 2014; large ticket deals drove transaction value in first two months of Q2 2015
- Global mid-market deal volume and value decline in Q1 2015; US mid-market deal value also fell in Q1 2015
- Average transaction size trends upwards for all size segments in Q1 2015 in the US; first two months of Q2 2015 witness robust increase in deal value, led by mega deals
- Global M&A activity remained robust in first five months of 2015, with high deal volume and average transaction size
- Globally, electronic equipment and semiconductors witnessed the largest M&A activity in deal volume and value in Q1 2015
- M&A activity in the US was led by electronic equipment, instruments and components, and communications equipment sub-sectors in US, accounting for over 64% of deal volume in Q1 2015
- Strategic buyers dominate global M&A activity in hardware industry with over 90% of deals
- Strategic buyers dominate M&A activity in US hardware industry, representing over 90% of deals
- US and Canada record highest M&A activity in hardware industry, accounting for 41% transactions by deal volume and 49% by deal value
- Global and US M&A transactions marked by lower purchase revenue multiples in Q1 2015 than Q4 2014 and Q1 2014
- Global M&A transactions marked by higher purchase price EBITDA multiples than Q4 2014 and Q1 2014 in Q1 2015; US M&A transactions marked by lower purchase price EBITDA multiples in Q1 2015
- Cross-border M&A accounts for over one-fourth of global transactions; cross-border deal value reaches three-year high in first two months of Q2 2015
- Number of US inbound deals increased in Q1 2015 while outbound deals remained flat; deal value of inbound M&A registered record growth as compared to the last three years
- Intel, Ametek and Arrow Electronics have been the most active recent acquirers in the hardware industry
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Global Digital Advertising: Global ad tech spending continues to grow rapidly, with mobile advertising steadily increasing its share of spending

- Digital ad spending is expected to rise at a CAGR of 14.9% from 2014 to 2018, driven by mobile, digital video, and programmatic buying

- Effective data-driven targeting, low CPMs, and a direct feedback loop that enables the calculation of ROI on digital advertising dollars spent have driven increased spending

- According to comScore, ~60% of time spent online in 2014 was on mobile devices, with the majority of this activity being within apps

Source: eMarketer
**US Digital Advertising:** Mobile ad spending in US to continue to increase share of digital ad spending

- The penetration of new video-capable devices and increased popularity of video streaming services are leading viewership away from traditional television.
- Ad tech budgets are shifting from linear television to online and mobile video, which has led to expansion in video advertising.

*Source: eMarketer, WCP Analysis*
Ad Tech M&A Drivers: Programmatic marketing platforms, real-time-bidding, and mobile ad growth

Digital Ad Tech: Key M&A Transactions

<table>
<thead>
<tr>
<th>Ann. Date</th>
<th>Target</th>
<th>Acquirer</th>
<th>Deal Value (US$ Mn)</th>
<th>EV/Revenue</th>
<th>Target Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>May-15</td>
<td>Shift Labs</td>
<td>Brand Networks</td>
<td>50</td>
<td>NA</td>
<td>Provides real-time marketing platform for advertisers</td>
</tr>
<tr>
<td>May-15</td>
<td>AOL</td>
<td>Verizon</td>
<td>4,759.40</td>
<td>1.7x</td>
<td>Digital distributor of content, products, and services</td>
</tr>
<tr>
<td>Apr-15</td>
<td>Bronto Software</td>
<td>NetSuite</td>
<td>200</td>
<td>NA</td>
<td>Provides cloud-based marketing platform</td>
</tr>
<tr>
<td>Apr-15</td>
<td>Chango</td>
<td>Rubicon Project</td>
<td>122</td>
<td>NA</td>
<td>Programmatic advertising platform provider</td>
</tr>
<tr>
<td>Mar-15</td>
<td>Mob Partner</td>
<td>Cheetah mobile</td>
<td>58</td>
<td>1.9x</td>
<td>Operates a mobile affiliate network that connects advertisers</td>
</tr>
<tr>
<td>Mar-15</td>
<td>eXelate</td>
<td>Nielsen</td>
<td>NA</td>
<td>NA</td>
<td>Provides analytics, smart data &amp; cloud products for marketers</td>
</tr>
<tr>
<td>Mar-15</td>
<td>Avazu</td>
<td>Dalian Zeus</td>
<td>333.6</td>
<td>NA</td>
<td>Digital marketing services provider</td>
</tr>
<tr>
<td>Mar-15</td>
<td>Yieldex</td>
<td>AppNexus</td>
<td>100</td>
<td>NA</td>
<td>Cross-channel revenue and inventory management platform</td>
</tr>
<tr>
<td>Feb-15</td>
<td>SocialMoov</td>
<td>Marin Software</td>
<td>18.8</td>
<td>NA</td>
<td>Provides platform for social advertising</td>
</tr>
<tr>
<td>Feb-15</td>
<td>Spotzot</td>
<td>Valassis Comm</td>
<td>NA</td>
<td>NA</td>
<td>Provides mobile advertising platforms with focus on location tech.</td>
</tr>
<tr>
<td>Jan-15</td>
<td>ZipDial</td>
<td>Twitter</td>
<td>30</td>
<td>NA</td>
<td>Provides marketing, customer engagement &amp; analytics solutions</td>
</tr>
</tbody>
</table>

Digital Ad Tech: M&A Outlook

- High demand for companies that provide innovative ways to create real value for brands is driving the M&A market in the digital ad tech space
- Digital ad tech companies that provide improved data analytics through complex algorithms, which enable effective and personalized targeting and provide real-time data, are expected to gain ground
  - Need for customer relationship management systems with valuable social data on target audiences that advertisers can use to develop and provide successful marketing campaigns may drive further acquisitions and partnerships
- Programmatic marketing platforms that provide advanced methods to optimize and measure the return on investment for advertisers are likely to attract increased attention

Source: Capital-IQ; WCP Analysis
Cyber Security: Increase in data breaches leads to spending increases

- The per capita cost of data breaches continues to increase, with the average estimated cost at US$153.1 in 2015, up from US$146.9 in 2014.
- Spending on cyber security by the US government is expected to increase significantly due to the increasing losses from data breaches, which is among the highest in the world.

Source: Ponemon Institute; MarketsandMarkets
## Cyber Security: Recent Transactions and Outlook

### Cyber Security: Key M&A Transactions

<table>
<thead>
<tr>
<th>Ann. Date</th>
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<th>Deal Value (US$ Mn)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Jun-15</td>
<td>OpenDNS</td>
<td>Cisco</td>
<td>635.0</td>
<td>NA</td>
<td>Cloud-based security solutions</td>
</tr>
<tr>
<td>Jun-15</td>
<td>Virtustream</td>
<td>EMC</td>
<td>1,200</td>
<td>NA</td>
<td>Provides enterprise-class cloud software and services and cyber security solutions</td>
</tr>
<tr>
<td>Jun-15</td>
<td>Knowledge Consulting Group</td>
<td>ManTech International</td>
<td>NA</td>
<td>NA</td>
<td>Provides cyber risk management, governance, operations, and compliance services</td>
</tr>
<tr>
<td>May-15</td>
<td>Resolution1 Security</td>
<td>General Dynamics Fidelis</td>
<td>NA</td>
<td>NA</td>
<td>Provides incident resolution solutions</td>
</tr>
<tr>
<td>May-15</td>
<td>Creative Computing Solutions</td>
<td>Information Innovators</td>
<td>NA</td>
<td>NA</td>
<td>Cyber security and health-focused Solutions</td>
</tr>
</tbody>
</table>

### Cyber Security: M&A Outlook

- The need for continuous improvement in technology to counter rapid evolving cyber threats is forecast to drive M&A as firms seek to acquire solutions rather than develop in-house
  - Firms may look to buy innovation-driven, small-scale firms that offer niche cyber security services and products
- An increase in business vulnerability as a result of growth in connectivity (often through less secure devices such as mobile phones and cloud storage) is likely to drive companies to acquire/partner with other security providers to reduce the risk of potential loss of IP, reputation, and customers
- The increased use of electronic/mobile commerce and banking, greater use of digital cash, and growth in new payment models may also lead to increased acquisitions

*Source: Capital-IQ; WCP Analysis*
**IoT Market:** Reduced component cost and need for connectivity to drive rapid growth

- IoT devices are projected to contribute to ~50% of global connected devices by 2020 as a result of:
  - Low cost to add IoT capability to consumer products, due to reduced component costs
  - Increased demand for remote control, monitoring, and sensing functions
  - The advent of low-priced sensors, low-cost internet bandwidth, big data analytics and the need for connectivity have led to growth in the IoT market

*Source: IDC, Strategy Analytics*
Global Wearables: Fitness devices to drive rapid growth

- Wearable device shipments are projected to reach 46.0 Mn by 2015 from 19.6 Mn in 2014; higher consumer awareness, new device launches, and cross platform adaptation of smart wearables are driving the demand for wearable devices.
- Wrist-wear devices, such as watches and bands, account for 90.4% of wearable devices; they are forecast to reach 101.4 Mn in shipments in 2019 from 17.7 Mn in 2014, expanding at a CAGR of 41.8%.

Source: IDC; Note: Basic wearables are those devices that do not run third party applications.
**Smart Homes:** Rapid growth driven by need for connectivity across devices and energy management, automation and security

- The smart home technology market is expected to reach US$71.8 Bn in 2017 from US$21.8 Bn in 2012, expanding at a CAGR of 26.9%
- Adoption is fueled by an increasing need for connectivity across devices for entertainment, computing, monitoring and control, and health
- The share of smart homes in smart cities is projected to increase to 39.9% in 2017 from 26.6% in 2015, fueled by investments in energy management, automation, and security

*Source: Deloitte University Press; Gartner*
**IoT Market:** Large, traditional companies acquiring smaller IoT vendors to establish foothold in rapidly emerging IoT sector

### IoT: Key M&A Transactions

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<tr>
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<th>Target Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun-15</td>
<td>Altera</td>
<td>Intel</td>
<td>15,844.5</td>
<td>8.3x</td>
<td>Embedded chip company that specializes in reconfigurable chips</td>
</tr>
<tr>
<td>Apr-15</td>
<td>Motorola Sol. Ent. device business</td>
<td>Zebra</td>
<td>3,450.0</td>
<td>NA</td>
<td>Rugged mobile comp, tablets, and WLAN products for business</td>
</tr>
<tr>
<td>Feb-15</td>
<td>Exelis, Inc.</td>
<td>Harris Corp.</td>
<td>5,193.2</td>
<td>1.43x</td>
<td>Command, control, communication, computers, intelligence, and surveillance electronics and systems provider</td>
</tr>
<tr>
<td>Feb-15</td>
<td>MyFitnessPal &amp; Endomondo</td>
<td>Under Armour</td>
<td>560.0</td>
<td>NA</td>
<td>• Health tracking app&lt;br&gt;• Social sports and fitness network</td>
</tr>
<tr>
<td>Feb-15</td>
<td>AlertMe</td>
<td>British Gas</td>
<td>67.7</td>
<td>NA</td>
<td>Home energy-monitoring software provider</td>
</tr>
<tr>
<td>Jan-15</td>
<td>Wit.ai</td>
<td>Facebook</td>
<td>NA</td>
<td>NA</td>
<td>Voice recognition technology</td>
</tr>
</tbody>
</table>

### IoT: M&A Outlook

- Large players, in an attempt to establish their foothold in the IoT-enabled landscape, are expected to increase acquisitions/partnerships with niche players: 2014/15 saw Google buy manufacturers of Internet-enabled technology for homes (Nest acquisition) and wearables (WIMM Labs acquisition)
- The need to leverage declines in technology cost and increased use of Internet connectivity to improve consumer relationships, find new revenue sources, and gain differentiated competitive advantage is likely to increase M&A activity in the IoT sector
- The threat of competition from established technology companies that also have presence in the IoT space is likely to drive acquisitions by bigger brands (Under Armour acquisition of MyFitnessPal)
- Connected cars and industrial IoT solutions are anticipated to drive growth in M&A activity as the need for smart mobility solutions and industrial demand intensify

*Source: Capital-IQ; WCP Analysis*
Global E-commerce and M-commerce: Growth led by rapid smartphone/Internet adoption combined with improved ability to transact via mobile devices

- Global e-commerce sales are expected to expand to US$1.3 Tn in 2018 from US$545 Bn in 2012, with Asia-Pacific and North America leading the market.
- Global m-commerce sales are projected to increase at a CAGR of 47.4% over 2012-2018, driven by growth in the adoption of mobile devices such as smartphones and tablets.

Source: eMarketer; Euromonitor; Goldman Sachs; Ex-travel
US E-Commerce and M-Commerce: M-Commerce to steadily increase overall share of E-Commerce

- US is currently the largest retail e-commerce market, with US$304.1E Bn in global e-commerce sales in 2014
- US retail m-commerce sales are forecast to rise to US$132.7 Bn in 2018 at a CAGR of 32.3% over 2012–18, driven by sales through tablets
- According to Forrester, US consumer adoption of smartphones and tablets is likely to rise to 244 mn and 150 mn users, respectively, in 2017

Source: eMarketer
**E-Commerce M&A Drivers:** Consolidation, omni-channel capabilities and need to build supply chain

### E-commerce/M-commerce: Key M&A Transactions

<table>
<thead>
<tr>
<th>Ann. Date</th>
<th>Target Description</th>
<th>Target</th>
<th>Acquirer</th>
<th>Deal Value (US$ Mn)</th>
<th>EV/Revenue</th>
<th>Target Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun-15</td>
<td>Online retail company</td>
<td>LightInTheBox Holding</td>
<td>Zhejiang Aokang Shoes</td>
<td>83.5</td>
<td>0.67x</td>
<td></td>
</tr>
<tr>
<td>May-15</td>
<td>Online takeaway food and home-delivery platform</td>
<td>Menulog Group</td>
<td>JUST EAT</td>
<td>687.3</td>
<td>33.0x</td>
<td></td>
</tr>
<tr>
<td>May-15</td>
<td>Online shopping platform</td>
<td>Hualian Electric Commerce</td>
<td>China Strategic Holdings</td>
<td>258.1</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>May-15</td>
<td>Online retailer for the global geek community</td>
<td>Geeknet</td>
<td>GameStop</td>
<td>133.8</td>
<td>0.71x</td>
<td></td>
</tr>
<tr>
<td>Apr-15</td>
<td>Online mobile recharge provider</td>
<td>Freecharge</td>
<td>Snapdeal</td>
<td>400.0</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Feb-15</td>
<td>Online travel company</td>
<td>Orbitz Worldwide</td>
<td>Expedia</td>
<td>1,880.1</td>
<td>1.82x</td>
<td></td>
</tr>
</tbody>
</table>

### E-commerce/M-commerce: M&A Outlook

- Consolidation in the sector, with bigger companies acquiring smaller, niche ones, is projected to drive M&A as players seek to expand geographic reach and product line.
- Growth in the concept of the omni-channel brand is likely to drive online retailers to acquire companies with physical real estate to provide inspection/trial of their products and engage with consumers. For instance, in 2014, Alibaba invested US$692 Mn in a Chinese department store operator to provide a storefront to its online operations and boost consumer experience.
- Brick-and-mortar retailers may look to acquire e-commerce retailers to build their digital footprint and/or enter new markets.
- To capitalize on mobile commerce, firms are likely to increase vertical and horizontal integration to expand mobile capabilities, thereby driving M&A in segments such as payments.

*Source: Capital-IQ; WCP Analysis*
Global Semiconductor Market by Segment (US$ Bn)

- The global semiconductor market is forecasted to expand at a CAGR of 4.9% to US$369.6 Bn during 2012–17 led by the integrated circuits segment, which accounts for more than 80% of total semiconductor sales.

- Asia-Pacific, the largest market, accounts for over 55% of the total semiconductor sales, and is projected to expand most rapidly at a CAGR of 6.6% over 2012–17.

Source: World Semiconductor Trade Statistics
Semiconductor M&A Drivers: Shift from PCs to mobiles, new technologies expected to improve connectivity and functionality

Semiconductor: Key M&A Transactions

<table>
<thead>
<tr>
<th>Ann. Date</th>
<th>Target</th>
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<th>Deal Value (US$ Mn)</th>
<th>EV/Revenue</th>
<th>Target Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun-15</td>
<td>Altera Corp.</td>
<td>Intel</td>
<td>18,220.5</td>
<td>8.31x</td>
<td>A semiconductor company, which manufactures programmable logic devices and reconfigurable complex digital circuits</td>
</tr>
<tr>
<td>May-15</td>
<td>Broadcom Corp.</td>
<td>Avago Tech.</td>
<td>36,697.9</td>
<td>3.97x</td>
<td>The company offers semiconductor solutions for wired and wireless communications</td>
</tr>
<tr>
<td>May-15</td>
<td>NXP Semiconductors</td>
<td>Investor Group</td>
<td>1,800.0</td>
<td>-</td>
<td>Divestiture of RF Power business</td>
</tr>
<tr>
<td>Apr-15</td>
<td>OmniVision Technologies</td>
<td>Investor Group</td>
<td>1,897.8</td>
<td>1.00x</td>
<td>The company designs, develops, manufactures, and markets semiconductor image-sensor devices</td>
</tr>
<tr>
<td>Mar-15</td>
<td>Freescale Semiconductor</td>
<td>NXP Semiconductor</td>
<td>17,297.2</td>
<td>3.58x</td>
<td>The company manufactures embedded processors</td>
</tr>
<tr>
<td>Mar-15</td>
<td>Philips LumiLeds</td>
<td>Investor Group</td>
<td>2,900.0</td>
<td>1.80x</td>
<td>The company develops, manufactures, and markets LEDs, modules, products, and systems for lighting applications</td>
</tr>
</tbody>
</table>

Semiconductor: M&A Outlook

- The continued shift from PCs to mobile is likely to increase M&A activity among PC-focused chip manufacturers, as they look to acquire companies to boost their mobile capabilities
- New technologies, such as Internet-of-Things, wearables, and smart home, may create opportunities for the semiconductor sector; embedding ‘smart’ capabilities into devices would require semiconductor companies to acquire innovative companies to optimize R&D investments
- Demand for products offering enhanced functionality, high processing speed, and reduced power consumption, is likely to increase M&A activity (Sumitomo Chemical’s bid to acquire the compound semiconductor materials business of Hitachi Cable)
- Chinese companies and investment groups becoming more active as potential buyers

Source: Capital-IQ; WCP Analysis
HR Technology: Social sourcing in recruitment and demand for analytics expected to drive M&A activity

HR Technology: Key M&A Transactions

<table>
<thead>
<tr>
<th>Ann. Date</th>
<th>Target</th>
<th>Acquirer</th>
<th>Deal Value (US$ Mn)</th>
<th>EV/Rev</th>
<th>Target Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>May-15</td>
<td>SuperiorHR</td>
<td>Zuman</td>
<td>NA</td>
<td>NA</td>
<td>Offers human resource (HR) outsourcing and consulting services</td>
</tr>
<tr>
<td>Nov-14</td>
<td>bswift</td>
<td>Aetna</td>
<td>400.0</td>
<td>NA</td>
<td>Benefits administration technology &amp; services to employers</td>
</tr>
<tr>
<td>Oct-14</td>
<td>Allocate Software</td>
<td>HgCapital</td>
<td>145.3</td>
<td>2.3x</td>
<td>Workforce optimization &amp; assurance s/w &amp; services</td>
</tr>
<tr>
<td>Oct-14</td>
<td>Evolv</td>
<td>Cornerstone OnDemand</td>
<td>42.5</td>
<td>14.2x</td>
<td>Provides workforce optimization solutions through big data</td>
</tr>
<tr>
<td>Sep-14</td>
<td>Concur</td>
<td>SAP</td>
<td>8,300.0</td>
<td>11.5x</td>
<td>Cloud-based travel and expense management</td>
</tr>
<tr>
<td>Apr-14</td>
<td>Distill</td>
<td>Gild</td>
<td>NA</td>
<td>NA</td>
<td>Provides platform enabling companies to find, engage, and hire talent with data and intelligence</td>
</tr>
</tbody>
</table>

HR Technology: M&A Outlook

- The cloud-based human capital management (HCM) applications market is projected to expand to US$8.4 Bn by 2018 from US$5 Bn in 2013 at a CAGR of 10.9%
- Big data and the growing contingent workforce are increasing demand for HR Technology
- Real-time workforce visibility and flexibility allow for organizations to respond to changing market conditions
- Cloud technology is creating massive economies of scale, while reducing IT resource involvement
- Adoption of social sourcing in recruitment, mobile applicant tracking, and Big Data analytics is forecasted to result in the acquisition of niche tech players

Source: Entrepreneur; Capital-IQ; WCP Analysis
**Storage Market:** Software-defined storage and infrastructure convergence for personal and enterprise data storage expected to drive M&A activity

**Storage: Key M&A Transactions**

<table>
<thead>
<tr>
<th>Ann. Date</th>
<th>Target</th>
<th>Acquirer</th>
<th>Deal Value (USD Mn)</th>
<th>EV/Rev.</th>
<th>Target Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr-15</td>
<td>IBM Storage</td>
<td>Lenovo</td>
<td>3,400.0</td>
<td>NA</td>
<td>Entire storage portfolio of IBM</td>
</tr>
<tr>
<td>Mar-15</td>
<td>Spansion</td>
<td>Cypress</td>
<td>5,000.0</td>
<td>NA</td>
<td>Supplier of flash memory and microcontrollers</td>
</tr>
<tr>
<td>Mar-15</td>
<td>Amplidata</td>
<td>WD/HGST</td>
<td>NA</td>
<td>NA</td>
<td>Object-based software defined storage solution</td>
</tr>
<tr>
<td>Jan-15</td>
<td>CloudOn</td>
<td>Dropbox</td>
<td>100.0</td>
<td>NA</td>
<td>Mobile document creator and editor</td>
</tr>
<tr>
<td>Jul-14</td>
<td>InMage Systems.</td>
<td>Microsoft</td>
<td>NA</td>
<td>NA</td>
<td>provides backup, disaster recovery, and cloud platform software for enterprises</td>
</tr>
<tr>
<td>Apr-14</td>
<td>InkTank</td>
<td>Red Hat</td>
<td>175.0</td>
<td>NA</td>
<td>Open source object storage provider</td>
</tr>
</tbody>
</table>

**Storage: M&A Outlook**

- The high cost and vulnerability of physical servers and storage devices are driving enterprises to adopt cloud storage as it offers the option of low-cost scalability with easy access and management of data
- Data protection and other add-on storage capabilities will become more directly linked to storage solutions
- Storage will move beyond serving database-friendly LUNs to providing more application-centric storage features
- Private cloud storage, particularly Tier-2 storage, is expected to be rolled out in larger deployments in 2015 by both the government sector and larger enterprises
- The need for advanced SSDs, flash arrays, software-defined-storage, and infrastructure convergence for personal and enterprise data storage is anticipated to drive M&A activity

*Source: Appsruntheworld; TechTarget; Capital-IQ; WCP Analysis*
Industry Landscape of Technology Sub-sectors

- **Cyber Security**
  - Blue Coat
  - Trustwave
  - CenterTools
  - websense
  - Symantec
  - Vorstack
  - EMC
  - Symantec
  - Seculert
  - Cisco
  - VeriSign
  - ThreatMetrix
  - ARGUS

- **HR Technology & Storage**
  - BambooHR
  - Epicor
  - Iams
  - Meridian
  - ClearCompany
  - Sutihvm
  - Openstack
  - Mozy
  - MediaFire
  - iCloud
  - Peapod
  - Amazon
  - EBAY
  - Flipkart
  - Best Buy
  - Alibaba

- **E-commerce / M-commerce**
  - Jackthreads
  - Otto Group
  - eBay
  - Uber
  - Ariba
  - Beyond The Rack
  - Ariba
  - Amazon
  - JD.com

- **Internet of Things**
  - Roost
  - 1leoo
  - August
  - SmartThings
  - Control4
  - Cargo

- **Semiconductor**
  - Intel
  - TSMC
  - Micron
  - SK hynix
  - Texas Instruments
  - Applied Materials
  - ASE Group
  - Broadcom
  - ST

- **Digital and Video Advertising**
  - BrightRoll
  - Viddler
  - Razorfish
  - LiveRail
  - BigDrop
  - Firstborn
  - SpotXchange
  - Kaltura
  - Ogilvy
  - HUGE
Global and US Software M&A Activity: Robust deal activity expected to continue through 2015 with deal value surging in the first two months of Q2 2015

Global deal volume in the software industry decreased 2.4% QoQ and 8.3% YoY to US$496B in Q1 2015, while aggregate deal value increased 40.9% QoQ to US$16.1 Bn in 2015’Q1 led by acquisition of Advent Software (US$2.6 Bn) by SS&C Technologies and Fundtech by DH Corporation (US$41.3 Bn). However, deal value in 2015’Q1 declined 59.7% YoY as 2014’Q1 witnessed one of the largest deals (Facebook’s acquisition of WhatsApp valued at US$19.7 Bn)

US deal volume rose 3.3% QoQ but declined 10.7% YoY to 251 in Q1 2015. Aggregate deal value surged 19.3% QoQ but decreased 70.2% YoY to US$8.8 Bn in Q1 2015. Deal value in US for the first two months of Q2 2015 stood higher than Q1 2015 at US$15.0 Bn led by two large deals (AOL and Informatica Corp.)

Source: Capital-IQ; *Till June 8, 2015; Note: Deals that are announced, closed or effective; Deal value includes transactions with disclosed values only
Global M&A Software Trends: Average transaction size increasing; Mid market deals rise in Q1 2015; Mega deals drive transaction value in the first two months of Q2 2015

- Deal value for large deals (>US$500 Mn) totaled US$8.7 Bn from 7 transactions, with an average deal value of US$1.2 Bn in Q1 2015.

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only
Global Mid-Market Software M&A: Deal volume and value surge in Q1 2015

Global & US: Mid Market Deal (US$50-500 Mn) Volume and Value

- Global mid-market deal volume rose marginally to 33 as compared to 32 in Q1 2014 and Q4 2014. Deal value surged 36.0% QoQ and 29.1% YoY to US$6.2 Bn in Q1 2015. Major deals in Q1 2015 included the acquisition of MyFitnessPal by Under Armour and KCG Hotspot by BATS Global Markets.

- US mid-market deals stood at 13 in Q1 2015 vis-à-vis 16 in Q4 2014 and 18 in Q4 2014. Aggregated deal value was US$2.7 Bn, an increase of 14.3% QoQ and at similar levels compared to Q1 2014.

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only
In Q1 2015, there were 30 transactions below US$50 Mn representing a total value of US$500 Mn. Average deal value rose to US$15.7 Mn in Q1 2015 from US$14.2 Mn in Q4 2014 and US$13.6 Mn in Q1 2014.

Mid-Market had 13 transactions valued at US$2.7 Bn in Q1 2015. Average deal value was US$204.3 Mn vs. US$145.2 Mn in Q4 2014 and US$204.3 Mn in Q1 2014.

Deal value for large deals (>US$500 Mn) totaled US$5.6 Bn from 4 transactions, with an average deal value of US$1.4 Bn in Q1 2015.
Global Software M&A Activity by Quarter

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Average Deal Size (US$ Mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12'Q1</td>
<td>$74.2 Mn</td>
</tr>
<tr>
<td>12'Q2</td>
<td>$86.1 Mn</td>
</tr>
<tr>
<td>12'Q3</td>
<td>$74.9 Mn</td>
</tr>
<tr>
<td>12'Q4</td>
<td>$92.4 Mn</td>
</tr>
<tr>
<td>13'Q1</td>
<td>$46.5 Mn</td>
</tr>
<tr>
<td>13'Q2</td>
<td>$189.4 Mn</td>
</tr>
<tr>
<td>13'Q3</td>
<td>$103.0 Mn</td>
</tr>
<tr>
<td>13'Q4</td>
<td>$108.3 Mn</td>
</tr>
<tr>
<td>14'Q1</td>
<td>$255.1 Mn</td>
</tr>
<tr>
<td>14'Q2</td>
<td>$105.5 Mn</td>
</tr>
<tr>
<td>14'Q3</td>
<td>$208.3 Mn</td>
</tr>
<tr>
<td>14'Q4</td>
<td>$80.9 Mn</td>
</tr>
<tr>
<td>15'Q1</td>
<td>$234.6 Mn</td>
</tr>
<tr>
<td>15'Q2</td>
<td>$134.4 Mn</td>
</tr>
</tbody>
</table>

Source: Capital-IQ; * Through June 8, 2015; Note: Deal value includes transactions with disclosed values only
### Online services dominate the global M&A activity, accounting for over 60% of the transactions in Q1 2015. Number of transactions totaled 314 in Q1 2015 vs. 318 in Q4 2014 and 322 in Q 2014. Application software, the second largest sector in terms of M&A activity, had 108 transactions in Q1 2015, similar to 107 transactions in Q4 2014 and 108 deals in Q1 2014.

### In terms of deal value, online services and application software have consistently remained the top two sectors. Deal value totaled US$6.9 Bn for online services and US$6.0 Bn for application software in Q1 2015.

*Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only*
Online services represented over 60% of the transactions in Q1 2015 in US. Number of transactions totaled 158 in Q1 2015 vs 160 in Q4 2014 and 187 in Q1 2014. Application software, the second most active sector, had 61 transactions in Q1 2015 compared to 47 transactions in Q4 2014 and 51 deals in Q1 2014.

Online services and application software are the dominant sectors in software industry. Deal value for transactions with disclosed value totaled US$5.1 Bn for application software and US$3.0 Bn for online services in Q1 2015.

Source: Capital-IQ; *Till June 8, 2015; Note: Deal value includes transactions with disclosed transaction values only.
Strategic Buyers Dominating Global Software M&A Activity

- Strategic buyers accounted for over 95% of the transactions, and 459 in Q1 2015 compared to 468 in Q4 2014 and 497 in Q1 2014.
- Financial buyers led only 22 M&A transactions in Q1 2015’Q1 vs. 23 in Q4 2014 and 29 in Q1 2014.

- Deal value for transactions led by strategic buyers rose to US$14.7 Bn in Q1 2015 from US$8.7 Bn in Q4 2014 but declined compared to US$31.6 Bn in Q1 2014.

Source: Capital-IQ; Note: 261 transactions did not disclose buyer details; Deal value refers to deals with disclosed transaction value.
Strategic Buyers Dominating US Software M&A Activity

US: Deal Volume by Buyer Type

- Strategic buyers also represented over 95% of the transactions, and were involved in 236 transactions in Q1 2015 compared to 223 in Q4 2014 and 263 in Q1 2014.
- Financial buyers led 10 M&A transactions in Q1 2015 vs. 11 in Q4 2014 and 12 in Q1 2014.

US: Deal Value by Buyer Type (US$ Bn)

- Deal value for transactions led by strategic buyers increased to US$8.2 Bn in Q1 2015 from US$5.0 Bn in Q4 2014 but declined compared to US$31.6 Bn in Q1 2014.
- Deal value for transactions led by financial buyers was US$600 Mn in Q1 2015 vs US$2.3 Bn in Q4 2014 and US$1.1 Bn in Q1 2014.

Source: Capital-IQ; Note: 85 deals did not disclose buyer details; Deal Volume includes all transactions for which buyer details are disclosed; Deal value refers to deals with disclosed transaction value.
US and Canada Accounts for Nearly Half of Total M&A activity in Software Industry, Followed by Europe

- US and Canada led the M&A activity in software industry, accounting for over 54% of the total global deals in Q1 2015. Number of deals in US stood at 270 in Q1 2015 compared to 274 in Q4 2014 and 300 in Q1 2014
- Europe is the second most active market, with 136 transactions in Q1 2015

In total deal value for the software industry, US and Canada accounted for around 55%, with US$8.9 Bn in Q1 2015 vs US$7.4 Bn in Q4 2014 and US$29.4 Bn in Q1 2014
- Europe remained the second largest market with transactions worth US$4.6 Bn in Q1 2015

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed transaction values only

- Average EV / Revenue multiple was 3.4x in Q1 2015 compared to 3.5x in Q4 2014 and 2.8x in Q1 2014
- Average revenue of the acquired company decreased to US$41.3 Mn in Q1 2015 from US$50.0 Mn in Q4 2014 and US$69.1 Mn in Q1 2014
- Average EV / Revenue multiple increased to 4.6x in Q1 2015 from 4.5x in Q4 2014 and 3.9x in Q1 2014
- Average revenue of an acquired company rose to US$112.1 Mn in Q1 2015 from US$74.1 Mn in Q4 2014, but decreased compared to US$126.6 Mn in Q1 2014

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only

Global: Average EV / EBITDA Multiple and TTM EBITDA

- Average EV / EBITDA multiple rose to 16.7x in Q1 2015 from 15.9x in Q4 2014 and 11.0x in Q1 2014
- Average EBITDA of the acquired company was US$16.3 Mn in Q1 2015 vs. US$8.4 Mn in Q4 2014 and US$17.1 Mn in Q1 2014

US: Average EV / EBITDA Multiple and TTM EBITDA

- Average EV/ EBITDA multiple increased to 25.5x in Q1 2015 from 17.3x in Q4 2014 and 10.9x in Q1 2014
- Average EBITDA of the acquired company surged to US$29.5 Mn in Q1 2015 from US$9.5 Mn in Q4 2014 and US$13.3 Mn in Q1 2014

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only
Cross-Border Software M&A: Nearly one-fourth of global transactions; 3-year high in value in Q2 2015

Global: Cross-Border M&A

- Cross-border M&A deal volume stood at 121 in Q1 2015 compared to 155 in Q4 2014 and 143 in Q1 2014. Deal value for disclosed deals totaled US$5.1 Bn in 2015’Q1 vs US$3.5 Bn in Q4 2014 and US$7.6 Bn in Q1 2014

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only
US Cross-Border Software M&A Activity: Generally strong and stable; transaction size surged in Q2 2015

US: Inbound and Outbound Deals

- US inbound M&A deal volume was 163 in 2014 compared to 125 in 2013. US outbound M&A activity remained robust in 2014, registering 224 deals compared to 188 deals in 2013.


Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only
# Notable Transactions in Software Industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Internet Software</th>
<th>Online Services</th>
<th>IT Services</th>
<th>Application Software</th>
<th>Systems Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>nicira (USD2.4 Bn; NA)</td>
<td>VMware (USD125.0 Mn; NA)</td>
<td>Yammer (USD1.2 Bn; NA)</td>
<td>OPNET (USD1.0 Bn; 5.0x)</td>
<td>Cloupia / Cisco (USD324.0 Mn; NA)</td>
</tr>
<tr>
<td>2013</td>
<td>Extranet (USD205.7 Mn; 2.0x)</td>
<td>ExactTarget (USD2.0 Bn; NA)</td>
<td>BlackArrow (USD19.7 Bn; NA)</td>
<td>Open Solutions LLC (USD1.0 Bn; NA)</td>
<td>CA (USD155.0 Mn; NA)</td>
</tr>
<tr>
<td>2014</td>
<td>Atlassian / dunnhumby (USD200.0 Mn; NA)</td>
<td>Facebook (USD3.3 Bn; 14.8x)</td>
<td>Infinera / Zellion (USD1.0 Bn; NA)</td>
<td>IBM / FireEye (USD0.8 Bn; 8.1x)</td>
<td>Concur / Microsoft (USD200.0 Mn; NA)</td>
</tr>
<tr>
<td>2015 YTD</td>
<td>Open Solutions LLC (USD2.7 Bn; 2.7x)</td>
<td>AOL (USD4.8 Bn; 1.7x)</td>
<td>Skrill (USD1.8 Bn; 1.7x)</td>
<td>Intel / Perimeta (USD5.3 Bn; 4.6x)</td>
<td>Skycure (USD28.0 Mn; 2.7x)</td>
</tr>
</tbody>
</table>

Source: Capital-IQ; Text in brackets (Deal Value, EV / Revenue Multiple)
## Most Active Acquirers in Software Industry Since 2012: Yahoo, Google and Twitter

### Most Active Buyers by Number of Deals (Since 2012)

<table>
<thead>
<tr>
<th>Company</th>
<th>Number of Deals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yahoo</td>
<td>30</td>
</tr>
<tr>
<td>Google</td>
<td>27</td>
</tr>
<tr>
<td>Twitter</td>
<td>22</td>
</tr>
<tr>
<td>IBM</td>
<td>20</td>
</tr>
<tr>
<td>Oracle</td>
<td>20</td>
</tr>
<tr>
<td>Trimble</td>
<td>20</td>
</tr>
<tr>
<td>Cisco</td>
<td>18</td>
</tr>
<tr>
<td>Dropbox</td>
<td>16</td>
</tr>
<tr>
<td>Facebook</td>
<td>16</td>
</tr>
<tr>
<td>Vista Equity Partners*</td>
<td>16</td>
</tr>
<tr>
<td>Microsoft</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: Capital-IQ; * Financial Buyer
<table>
<thead>
<tr>
<th>CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary                                                      5</td>
</tr>
<tr>
<td>Technology Trends                                                      9</td>
</tr>
<tr>
<td>Software Industry M&amp;A Overview                                        27</td>
</tr>
<tr>
<td><strong>Hardware Industry M&amp;A Overview</strong>                                    44</td>
</tr>
<tr>
<td>Stock Market Performance                                              61</td>
</tr>
</tbody>
</table>
Global Hardware M&A Activity: Strong growth in 2015; Deal value highest in three years

- The global deal volume increased 7.9% QoQ and 2.5% YoY to 288 in Q1 2015, while the aggregate deal value grew to US$45.3 Bn in Q1 2015 compared to US$20.7 Bn in Q4 2014 and US$12.1 Bn in Q1 2014. This was led by the acquisition of Freescale Semiconductors (US$17.3 Bn) by NXP Semiconductors.

- Deal volume in the US rose 17.8% QoQ, but declined 10.9% YoY to 106 in Q1 2015. Aggregate deal value surged 218.5% QoQ and 350.3% YoY to US$34.7 Bn in Q1 2015. Deal value in the US for the first two months Q2 2015 stood higher than that for all of Q1 2015 at US$59.4 Bn, as a result of two mega deals: Broadcom (US$36.7 Bn) by Avago Technologies and Altera (US$18.2 Bn) by Intel.

Source: Capital-IQ; *Through June 8, 2015; Note: Deals that are announced, closed or effective; Deal value includes transactions with disclosed values only.
**Global M&A Hardware Trends:** Large increase in transaction size in 2015 contrasts with overall decline in volume since 2012


- The mid-market witnessed 26 transactions at USD4.3 Bn in 2015’Q1. The average deal value was USD166.4 Mn in 2015’Q1, compared with USD179.1 Mn in 2014’Q4 and USD144.4 Mn in 2014’Q1.

- The deal value for large deals (>US$500 Mn) totaled US$40.0 Bn from 12 transactions, with an average deal value of US$3.3 Bn in Q1 2015.

*Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only*
Global Hardware M&A Trends: Mid-market deal volume and value generally flat since 2012

- The global mid-market deal volume declined to 26 in Q1 2015, compared with 29 in Q4 2014. The deal value declined 16.7% QoQ and 0.1% YoY to US$4.3 Bn in Q1 2015. The major deals in Q1 2015 were the acquisition of Annapurna Labs (US$400.0 Mn) by Amazon and Vitesse Semiconductor (US$399.0 Mn) by Microsemi.

- US mid-market deals stood at five in Q1 2015 vs nine in Q4 2014 and 13 in Q1 2014. The deal value totaled US$1.1 Bn, decreasing 41.4% QoQ and 33.7% YoY.

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only
US Hardware M&A Trends: Large increase in transaction size in 2015 contrasts with overall decline in volume since 2012

- The number of deals below US$50 Mn was 21, and had a total value of US$400 Mn in Q1 2015. The average deal value rose to US$19.9 Mn in Q1 2015, from US$18.1 Mn in Q4 2014 and US$12.6 Mn in Q1 2014.

- The mid-market had five transactions totaling US$1.1 Bn in Q1 2015. The average deal value rose to US$221.1 Mn vs. US$209.5 Mn in Q4 2014 and US$128.2 Mn in Q4 2014.

- The deal value for large deals (>US$500 Mn) totaled US$33.2 Bn from nine transactions, with an average deal value of US$3.7 Bn in Q1 2015.

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only
Global Hardware M&A Activity by Quarter

**Global: Average Deal Size**

Bubble size indicates deal value (for disclosed deals >$50 Mn)

- **13'Q1**: $381.7 Mn
- **13'Q4**: $154.3 Mn
- **12'Q3**: $98.3 Mn
- **12'Q1**: $170.4 Mn
- **12'Q2**: $143.4 Mn
- **14'Q3**: $149.1 Mn
- **14'Q1**: $104.1 Mn
- **14'Q4**: $207.3 Mn
- **15'Q1**: $423.4 Mn
- **15'Q2**: $1,155.2 Mn
- **12'Q2**: $107.9 Mn

Source: Capital-IQ; * Through June 8, 2015; Note: Deal value includes transactions with disclosed values only.
Electronic equipment, instruments and components dominated global M&A activity, accounting for over 40% transactions in Q1 2015. The number of transactions totaled 120 in Q1 2015, vs. 118 in Q4 2014 and 144 in Q1 2014. Technology distributors, the second largest sub-sector in terms of M&A activity, had 60 transactions in Q1 2015, compared with 49 in Q4 2014 and 47 in Q1 2014.

Communications equipment and semiconductors and semiconductor equipment were the top two sectors based on deal value.

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only.
Global Hardware M&A Activity by Sub-Sector

- Electronic equipment, instruments and components represented more than 41% of the transactions in Q1 2015 in US. Number of transactions totaled 44 in Q1 2015 vs. 35 in Q4 2014 and 64 in Q1 2014. Communications equipment, the second most active sub-sector, had 24 transactions in Q1 2015 compared to 16 transactions in Q4 2014 and 21 deals in Q1 2014.

- Semiconductors and Semiconductor Equipment was the largest sub-sector in terms of deal value in Q1 2015 with value totaling US$19.3 Bn

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed transaction values only
Strategic Buyers Dominating Global Hardware M&A Activity

- Strategic buyers account for over 90% of the M&A deals: 248 in Q1 2015 compared with 228 in Q4 2014 and 243 in Q1 2014
- Financial buyers led 23 M&A transactions in Q1 2015, vs 16 in Q4 2014 and 14 in Q1 2014

The deal value for transactions by strategic buyers rose to US$33.0 Bn in Q1 2015, from US$15.4 Bn in Q4 2014 and US$10.8 Bn in Q1 2014
- Financial buyers accounted for US$11.6 Bn in Q1 2015, representing a significant increase from US$5.0 Bn in Q4 2014 and US$0.3 Bn in Q1 2014

Source: Capital-IQ; Note: 226 transactions did not disclose buyer details; Deal value refers to deals with disclosed transaction value
Strategic Buyers Dominating US Hardware M&A Activity

US: Deal Volume by Buyer Type

- Strategic buyers accounted for over 90% of M&A transactions in the US: 93 transactions in Q1 2015, compared with 82 in Q4 2014 and 113 in Q1 2014
- Financial buyers led nine M&A transactions in Q1 2015, vs five in Q4 2014 and three in Q1 2014

US: Deal Value by Buyer Type (US$ Bn)

- The deal value for transactions led by strategic buyers increased to US$25.8 Bn in Q1 2015, from US$7.0 Bn in Q4 2014 and US$7.7 Bn in Q1 2014
- The deal value for transactions led by financial buyers was US$8.2 Bn in Q1 2015, vs US$3.9 Bn in Q4 2014 and US$41.0 Mn in Q1 2014

Source: Capital-IQ; Note: 34 deals did not disclose buyer details; Deal Volume includes all transactions for which buyer details are disclosed; Deal value refers to deals with disclosed transaction value
The US and Canada led M&A activity in the hardware industry, accounting for ~41% of deals in Q1 2015. The number of deals in the region was 120 in Q1 2015, compared with 102 in Q4 2014 and 126 in Q1 2014.

- Europe was the second most active market, with 93 transactions in Q1 2015.

The US and Canada accounted for over 49% of the deal value in the hardware industry, which totaled US$35.0 Bn in Q1 2015, vs US$11.1 Bn in Q4 2014 and US$7.7 Bn in Q1 2014.

- Europe, with transactions worth US$7.6 Bn, remained the second largest market in Q1 2015.

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed transaction values only.
Global and US Hardware M&A Revenue Multiples

Global: Average EV/ Revenue Multiple and TTM Revenue

- The average EV/Revenue multiple was 1.8x in Q1 2015, compared with 2.2x in Q4 2014 and 2.7x in Q1 2014.
- The target company’s average revenue rose to US$235.3 Mn in Q1 2015, from US$163.2 Mn in Q4 2014 and US$67.7 Mn in Q1 2014.

US: Average EV/ Revenue Multiple and TTM Revenue

- The average EV/Revenue multiple decreased to 1.9x in Q1 2015, from 3.0x in Q4 2014 and 3.1x in Q1 2014.
- The acquired company’s average revenue surged to US$463.8 Mn in Q1 2015, from US$178.6 Mn in Q4 2014 and US$91.9 Mn in Q1 2014.

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only.
The average EV/EBITDA multiple rose to 15.5x in Q1 2015 from 12.9x in Q4 2014 and 12.4x in Q1 2014.

The acquired company’s average EBITDA rose to US$94.1 Mn in Q1 2015, vs US$38.4 Mn in Q4 2014 and US$13.5 Mn in Q1 2014.

The average EV/EBITDA multiple decreased to 16.4x in Q1 2015, from 17.8x in Q4 2014 and 16.9x in Q1 2014.

The acquired company’s average EBITDA surged to US$143.1 Mn in Q1 2015, from US$31.0 Mn in Q4 2014 and US$20.6 Mn in Q1 2014.

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only.
Cross-Border M&A: Represents over one-fourth of global transactions; Deal value surges in 2015


- The total number of cross-border M&A deals was 97 in Q1 2015, compared with 85 in Q4 2014 and 74 in Q1 2014. The deal value for disclosed deals surged to US$27.2 Bn in Q1 2015, vs US$11.4 Bn in Q4 2014 and US$2.6 Bn in Q1 2014.

Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only
US Cross-Border Hardware M&A Activity: Number of deals flat for past three years; Deal value achieved record high in 2015


Source: Capital-IQ; *Through June 8, 2015; Note: Deal value includes transactions with disclosed values only
## Notable Transactions in Hardware Industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Communications Equipment</th>
<th>Electronic Equipment and Instruments and Components</th>
<th>Technology Hardware, Storage and Peripherals</th>
<th>Semiconductors and Semiconductor Equipment</th>
<th>Technology Distributors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>SANOXIA / SIFANG (USD10.0 Bn; NA)</td>
<td>elster (USD2.9 Bn; 1.5x)</td>
<td>CRANE (USD804.0 Mn; NA)</td>
<td>Micron Memory Japan (USD3.7 Bn; 0.6x)</td>
<td>Brightpoint / Ingram Micro (USD857.0 Mn; 0.2x)</td>
</tr>
<tr>
<td></td>
<td>GENERAL / ARRIS (USD2.5 Bn; 0.7x)</td>
<td>Honeywell (USD710.7 Mn; 0.8x)</td>
<td>Intermec / Honeywell (USD2.7 Bn; 4.2x)</td>
<td>CYMER / ASML Electric Power Control System &amp; others (USD525.8 Mn; NA)</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>NOKIA / Microsoft (USD5.0 Bn; 0.3x)</td>
<td>molex / KOCH (USD7.2 Bn; 1.8x)</td>
<td>Dell / SilverLake (USD28.1 Bn; 0.4x)</td>
<td>LSI / Avago Technologies (USD6.6 Bn; 2.5x)</td>
<td>hybris / SAP (USD1.4 Bn; 12.4x)</td>
</tr>
<tr>
<td></td>
<td>Acer / packet / ORACLE (USD2.0 Bn; 6.1x)</td>
<td>iSTA / CVC (USD4.0 Bn; NA)</td>
<td>Virident / HGST (USD685 Mn; NA)</td>
<td>Spreadtrum / NRI (USD1.7 Bn; 1.7x)</td>
<td>Softchoice / Sierra Well (USD401.5 Mn; 0.3x)</td>
</tr>
<tr>
<td>2014</td>
<td>Riverbed / Think Fast / THOMA BRAVO (USD3.9 Bn; 3.2x)</td>
<td>TPx / DTS / EDA (USD2.6 Bn; 3.1x)</td>
<td>Motorola Solutions (USD3.4 Bn; NA)</td>
<td>International Rectifier (USD3.0 Bn; 2.2x)</td>
<td>FCI / ADT (USD506.1 Mn; NA)</td>
</tr>
<tr>
<td></td>
<td>(USD2.8 Bn; NA)</td>
<td>measurement / TE (USD1.7 Bn; 3.9x)</td>
<td>SanDisk (USD1.3 Bn; 2.7x)</td>
<td>Infineon / Infineon (USD2.4 Bn; 7.1x)</td>
<td>ITX / Nojima (USD439.4 Mn; 0.2x)</td>
</tr>
<tr>
<td>2015 YTD</td>
<td>Alcatel-Lucent / NOKIA (USD23.1 Bn; 1.2x)</td>
<td>Focus Multimedia Technology (Shanghai) (USD6.5 Bn; 6.0x)</td>
<td>Migotech / Join-In (Holding) (USD336.6 Mn; NA)</td>
<td>Broadcom / Avago Technologies (USD36.7 Bn; 4.0x)</td>
<td>FCT / EuroParts (USD182.8 Mn; NA)</td>
</tr>
<tr>
<td></td>
<td>(USD5.1 Bn; NA)</td>
<td>(USD2.4 Bn; 4.1x)</td>
<td>(USD215.0 Mn; 3.6x)</td>
<td>ATEC / Intel (USD18.2 Bn; 8.3x)</td>
<td>SAMT / SAMJ (USD137.7 Mn; 0.2x)</td>
</tr>
</tbody>
</table>

Source: Capital-IQ; Text in brackets (Deal Value, EV / Revenue Multiple)
**Most Active Hardware Acquirers:** Intel, Ametek and Arrow Electronics

**Most Active Buyers by Number of Deals (Since 2012)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Deals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intel</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Ametek</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Arrow Electronics</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Microchip Technology</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>ABB</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>Exclusive Networks SAS</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>SBA Communications</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>Lagercrantz</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>Cansel Survey Equipment</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Google</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>IHS Nigeria</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Capital-IQ; Note: M.Tech Holdings has not been included as it acquired nine of its related entities
Technology Stock Performance: Technology indices have outperformed broader market indices, led by US; Volatility has trended down

Global Technology Market Performance

<table>
<thead>
<tr>
<th></th>
<th>1-Month</th>
<th>3-Month</th>
<th>6-Month</th>
<th>1 Year</th>
<th>3 Year</th>
<th>5 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P Global Technology Index</td>
<td>(0.6%)</td>
<td>0.4%</td>
<td>3.0%</td>
<td>13.5%</td>
<td>61.9%</td>
<td>89.8%</td>
</tr>
<tr>
<td>S&amp;P Global Index</td>
<td>(1.8%)</td>
<td>0.1%</td>
<td>1.3%</td>
<td>2.2%</td>
<td>51.2%</td>
<td>64.5%</td>
</tr>
<tr>
<td>S&amp;P US Technology Index</td>
<td>0.3%</td>
<td>0.9%</td>
<td>3.6%</td>
<td>18.2%</td>
<td>72.7%</td>
<td>120.5%</td>
</tr>
<tr>
<td>S&amp;P US Index</td>
<td>(1.0%)</td>
<td>(0.3%)</td>
<td>1.0%</td>
<td>8.6%</td>
<td>63.7%</td>
<td>96.5%</td>
</tr>
</tbody>
</table>

Volatility: CBOE Volatility Index

Source: Bloomberg
Global Technology Stock Valuations: Technology stocks trade at an EV / Revenue multiple premium compared to overall market, while EV / EBITDA multiples are at a discount.

**Global: EV / Revenue Multiple**

- 2009: 1.6x
- 2010: 1.5x
- 2011: 1.4x
- 2012: 1.5x
- 2013: 2.0x
- 2014: 2.3x
- 2015E: 2.3x
- 2016E: 2.2x

**Global: Revenue (US$ per share)**

- 2009: 839
- 2010: 976
- 2011: 1,195
- 2012: 1,341
- 2013: 1,392
- 2014: 1,390
- 2015E: 1,378
- 2016E: 1,383

**Global: EV / EBITDA Multiple**

- 2009: 10.8x
- 2010: 9.4x
- 2011: 8.1x
- 2012: 8.8x
- 2013: 9.6x
- 2014: 9.8x
- 2015E: 10.0x
- 2016E: 9.5x

**Global: EBITDA (US$ per share)**

- 2009: 125
- 2010: 200
- 2011: 228
- 2012: 239
- 2013: 242
- 2014: 234
- 2015E: 263
- 2016E: 261

Source: Bloomberg
**US Technology Stock Valuations:** US technology stocks trade at a higher EV / Revenue multiple premium compared to overall market, and a similar EV / EBITDA multiple discount

### US: EV / Revenue Multiple

<table>
<thead>
<tr>
<th>Year</th>
<th>S&amp;P US 500 Information Technology Index</th>
<th>S&amp;P 500 Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>2.4x</td>
<td>1.7x</td>
</tr>
<tr>
<td>2010</td>
<td>2.2x</td>
<td>1.8x</td>
</tr>
<tr>
<td>2011</td>
<td>1.9x</td>
<td>1.6x</td>
</tr>
<tr>
<td>2012</td>
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<td>1.7x</td>
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<td>2013</td>
<td>2.7x</td>
<td>2.0x</td>
</tr>
<tr>
<td>2014</td>
<td>3.0x</td>
<td>2.1x</td>
</tr>
<tr>
<td>2015E</td>
<td>3.0x</td>
<td>2.2x</td>
</tr>
<tr>
<td>2016E</td>
<td>2.9x</td>
<td>2.1x</td>
</tr>
</tbody>
</table>

### US: Revenue (US$ per share)

<table>
<thead>
<tr>
<th>Year</th>
<th>S&amp;P US 500 Information Technology Index</th>
<th>S&amp;P 500 Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>903</td>
<td>140</td>
</tr>
<tr>
<td>2010</td>
<td>939</td>
<td>163</td>
</tr>
<tr>
<td>2011</td>
<td>1,019</td>
<td>190</td>
</tr>
<tr>
<td>2012</td>
<td>1,064</td>
<td>204</td>
</tr>
<tr>
<td>2013</td>
<td>1,099</td>
<td>196</td>
</tr>
<tr>
<td>2014</td>
<td>1,144</td>
<td>210</td>
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<tr>
<td>2015E</td>
<td>1,129</td>
<td>217</td>
</tr>
<tr>
<td>2016E</td>
<td>1,200</td>
<td>228</td>
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</table>

### US: EV / EBITDA Multiple

<table>
<thead>
<tr>
<th>Year</th>
<th>S&amp;P US 500 Information Technology Index</th>
<th>S&amp;P 500 Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>10.9x</td>
<td>10.1x</td>
</tr>
<tr>
<td>2010</td>
<td>8.7x</td>
<td>7.4x</td>
</tr>
<tr>
<td>2011</td>
<td>9.7x</td>
<td>8.4x</td>
</tr>
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<td>2012</td>
<td>9.0x</td>
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<td>9.9x</td>
<td>10.7x</td>
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<tr>
<td>2014</td>
<td>10.7x</td>
<td>11.6x</td>
</tr>
<tr>
<td>2015E</td>
<td>11.6x</td>
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<td>8.8x</td>
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### US: EBITDA (US$ per share)

<table>
<thead>
<tr>
<th>Year</th>
<th>S&amp;P US 500 Information Technology Index</th>
<th>S&amp;P 500 Index</th>
</tr>
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<tbody>
<tr>
<td>2009</td>
<td>31</td>
<td>150</td>
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<tr>
<td>2010</td>
<td>42</td>
<td>173</td>
</tr>
<tr>
<td>2011</td>
<td>49</td>
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<td>2012</td>
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<td>2013</td>
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<td>208</td>
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<td>2014</td>
<td>59</td>
<td>212</td>
</tr>
<tr>
<td>2015E</td>
<td>68</td>
<td>230</td>
</tr>
<tr>
<td>2016E</td>
<td>74</td>
<td>251</td>
</tr>
</tbody>
</table>

*Source: Bloomberg*
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