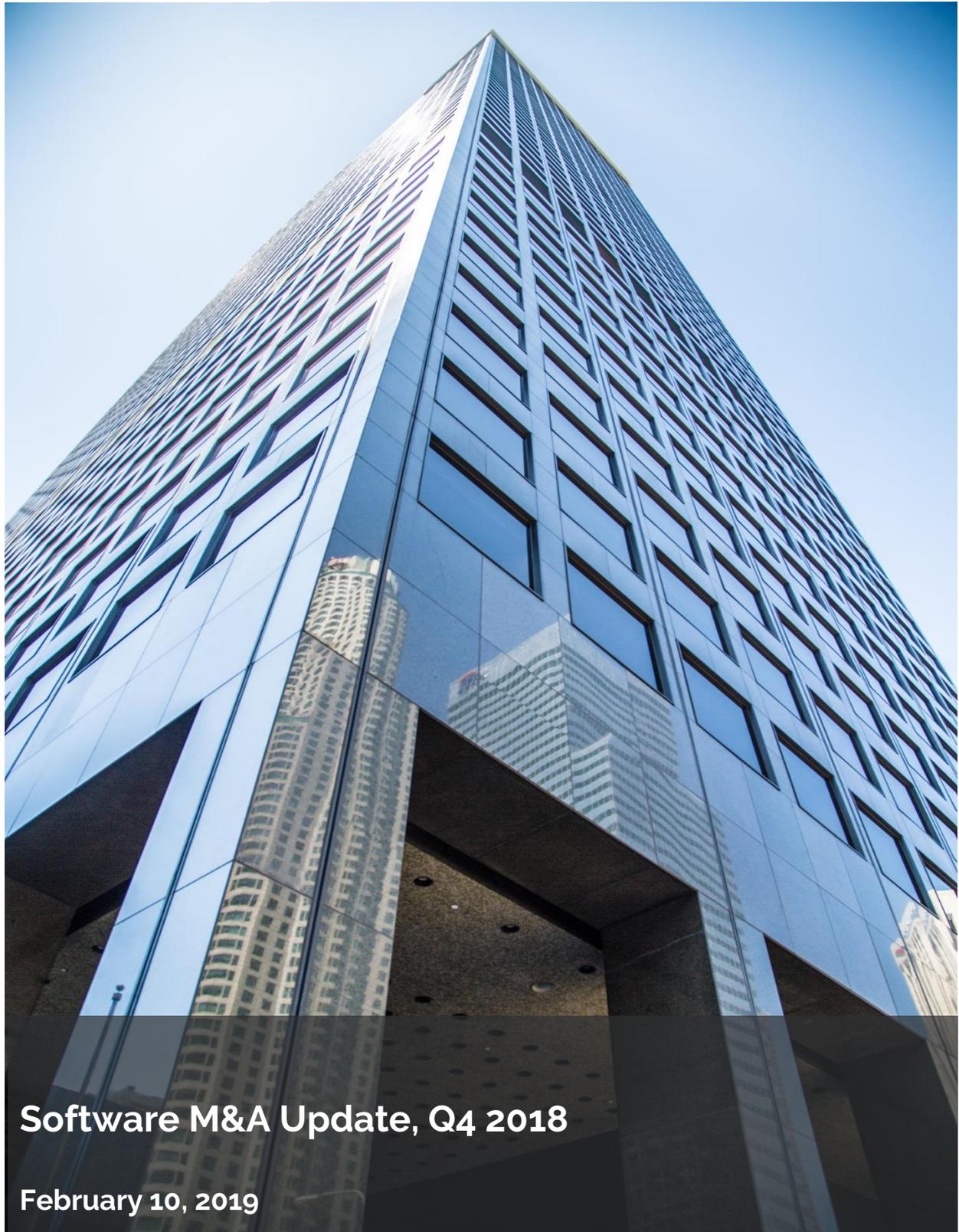




Solganick & Co.

**Software
Investment Banking + M&A Advisory**



Software M&A Update, Q4 2018

February 10, 2019

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About Solganick & Co.

Solganick & Co. is an independent investment banking and M&A advisory firm focused exclusively on the global software and tech-enabled services industry sectors. We cover the software sector comprehensively including enterprise, cloud, analytics, SaaS, FinTech, artificial intelligence, InsurTech, HR Tech, and cybersecurity. We advise buyers and sellers of companies and efficiently execute M&A transactions that help increase shareholder value. Our professionals have advised on \$20+ billion in M&A transactions to date and have current clients and relationships globally with entrepreneurs, companies and leading private equity firms within the sectors we cover.

Sources for our research and data include: Dealogic, ValueWalk, PwC, Company Websites, SEC Filings, MergerMarket, Berkery Noyes, Deloitte, Fortune, 451 Research, medium.com, CNBC, Yahoo Finance, and our own proprietary research.

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M&A Market Brief

Global, U.S., and Software M&A Activity YTD 2018

Worldwide

The global M&A value in 2018 totaled US **\$3.13T** via **16,605** deals.

The median deal size was \$38.98 Million through 2018 compared to \$26.62 Million in 2017.

A **\$943.29 bn** Q4 2018 deal value worldwide represents a 10.2% increase from Q3 2018 deal value at **\$701.5 bn**.

Q4 2018 observed the highest value of transactions in 2018 compared to Q1, Q2, and Q3, that averaged **\$729 bn**.

The Biggest M&A Deal of the year took place in the fourth quarter - IBM's acquisition of Red Hat, Inc. for **\$34 bn**.

United States

U.S. M&A value in Q4 2018 totaled US **\$429.44 bn**.

Number of Transactions in the U.S. M&A market totalled to 1,129.

The highest value of transactions were recorded in the following verticals:

- Technology, Media, and Telecommunications
- Life Sciences
- SaaS
- Industrials

There was a total of **14** megadeals (deal value over US\$10B) in Q1-Q3 2018, three more than in Q1-Q3 2017.

U.S. M&A transactions accounted for **42%** of the global M&A by deal count. This is up from **40.9%** Q1-Q3 2017.

Software

Total software M&A **transaction volume** in Q4 2018 was 233 compared to 265 in Q4 2017.

Total **transaction value** in Q4 2018 **rose by 205.73%** compared to Q4 2017, from **\$25.09 bn** to **\$76.71 bn**.

Median Deal Size in Q4 2018 was **\$100 mn** compared to **\$50.5 mn** in Q4 2017

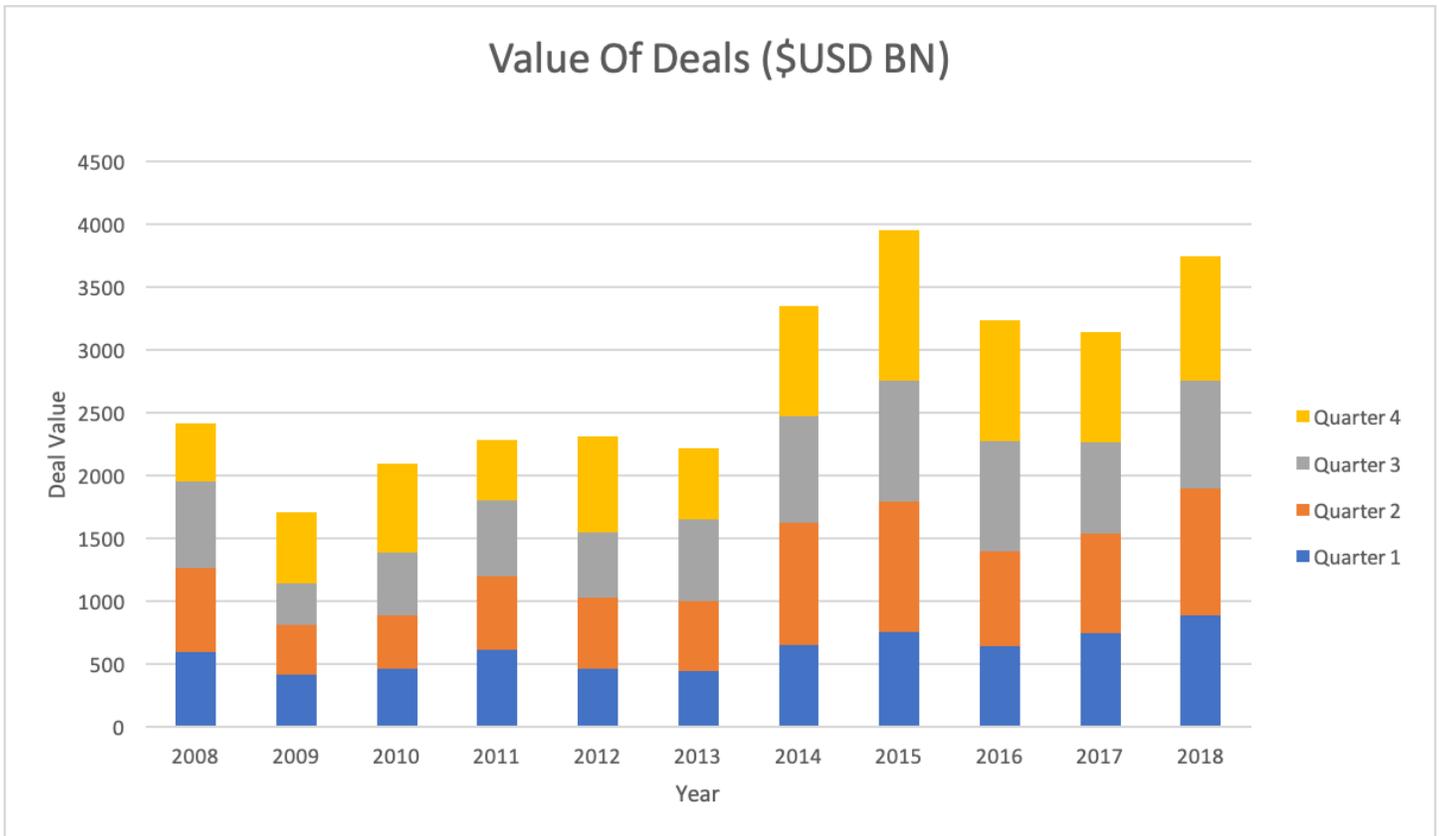
The software industry continues to be very active:

- Microsoft acquired Github for **\$7.5 bn**
- IBM acquired Red Hat Systems for **\$34 bn**
- Cisco acquired Duo for **\$2.35 bn**
- Paypal acquired Hyperwallet for **\$0.40 bn**

Source: Pitchbook, Financial Times

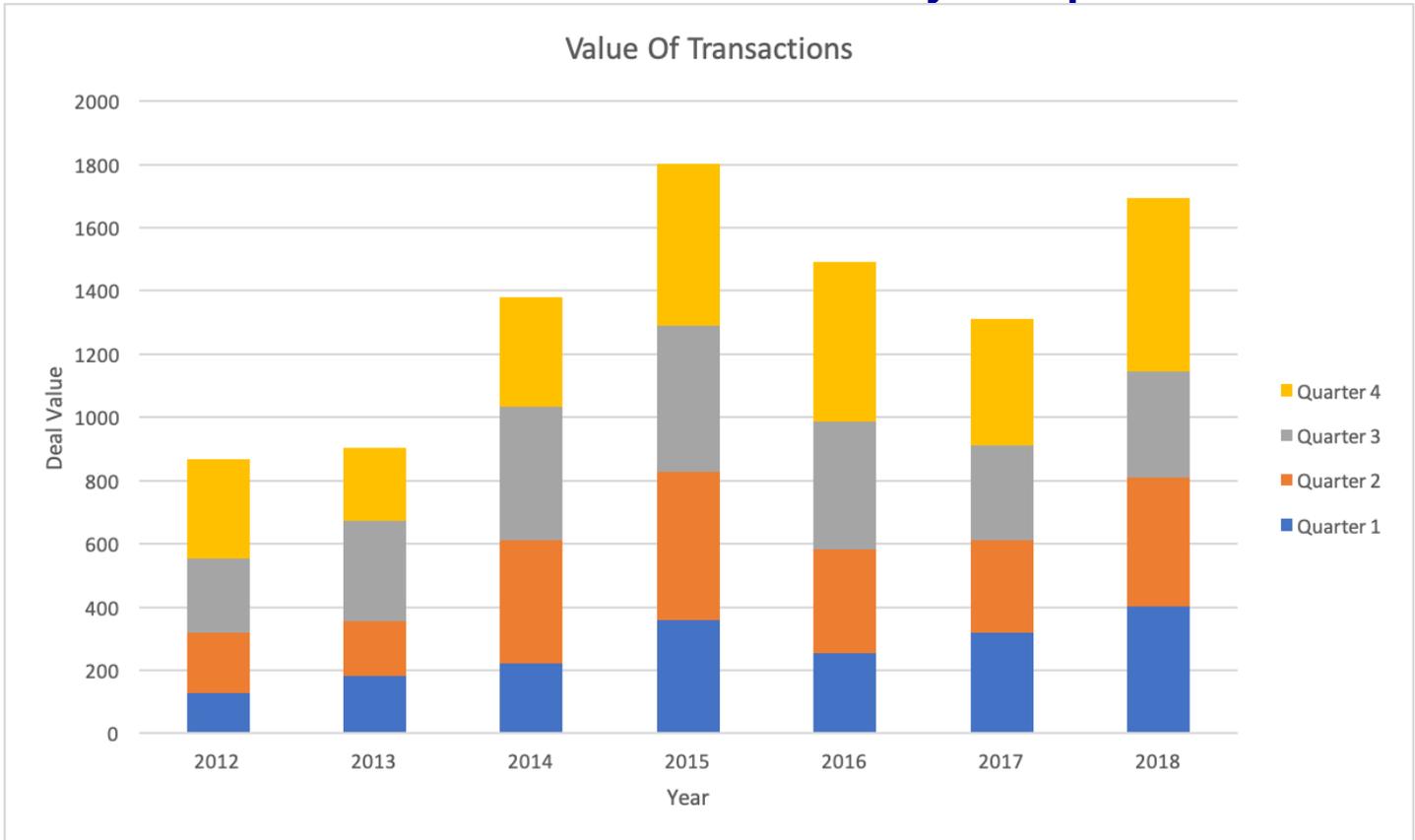
M&A Activity in Q4 2018

Global M&A Deal Value - Quarterly Comparison



Source: MergerMarket

United States M&A Deal Value – Quarterly Comparison

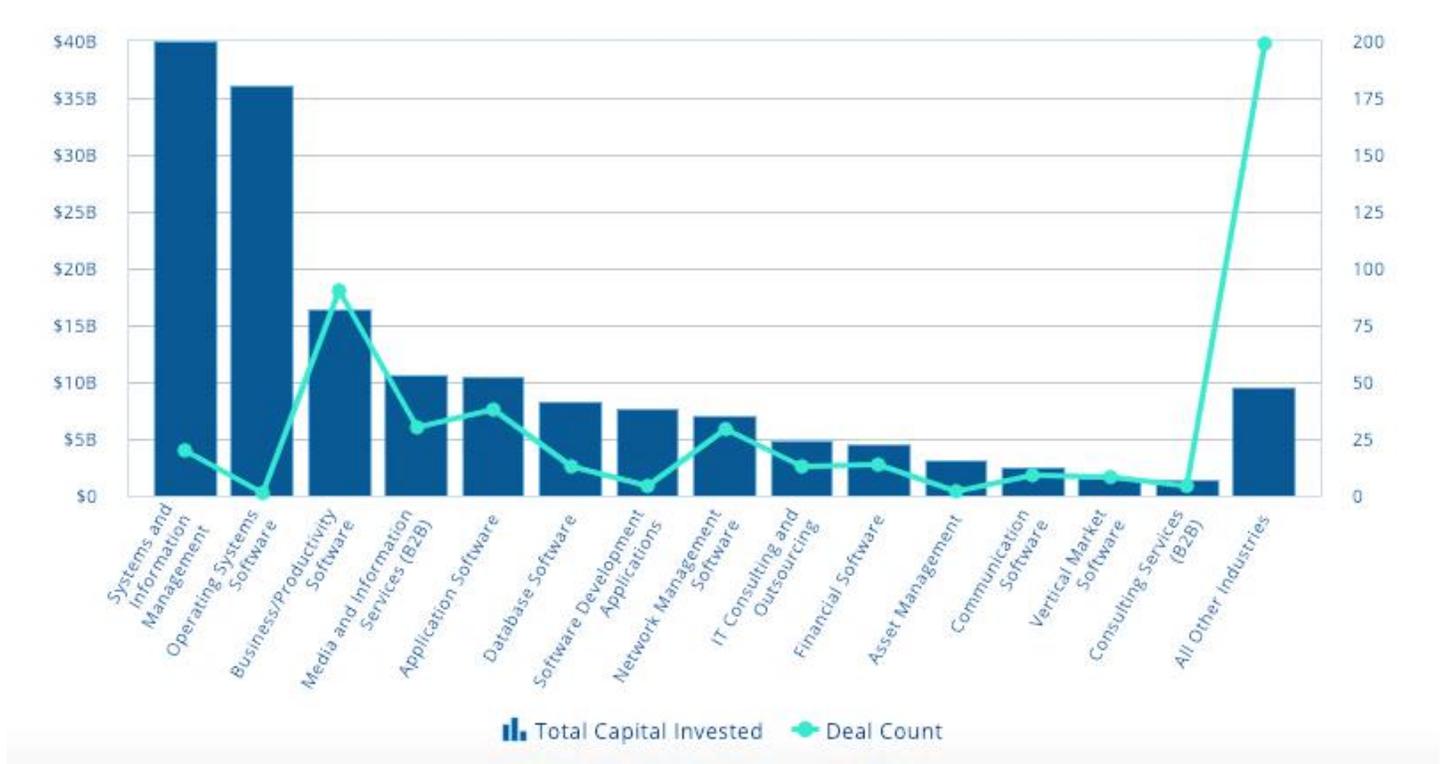


Source: MergerMarket

Software M&A Activity in Q4 2018

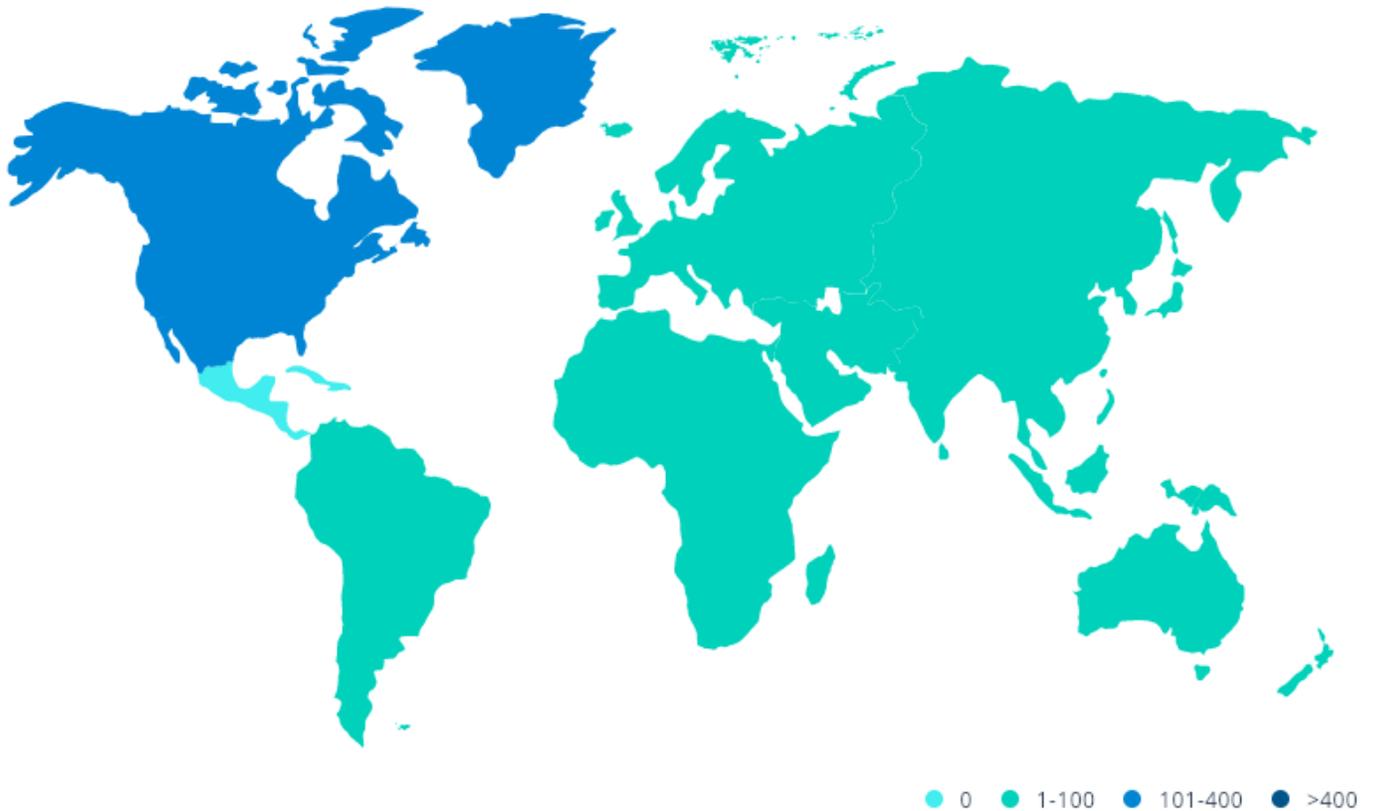
Within the software arena, **M&A deal activity rose 31 percent** in the first nine months of 2018, and the total value of those software deals **skyrocketed 264 percent**, according to Pitchbook.

Global Software M&A By Type



Source: Pitchbook

Global Software Transactions – Breakdown by Geopgraphy



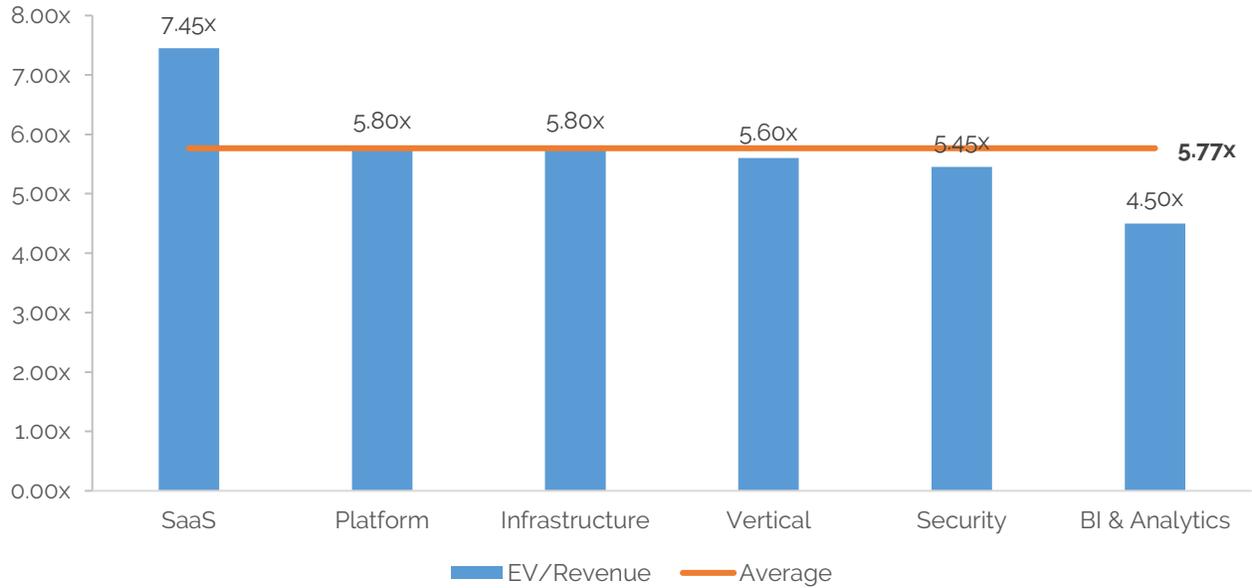
The graph represents the volume of transactions that took place around the world during Q4, 2018.

While the U.S and Canada dominated the M&A market around the world, other continents also showed great challenge, averaging about 100 transactions through the quarter.

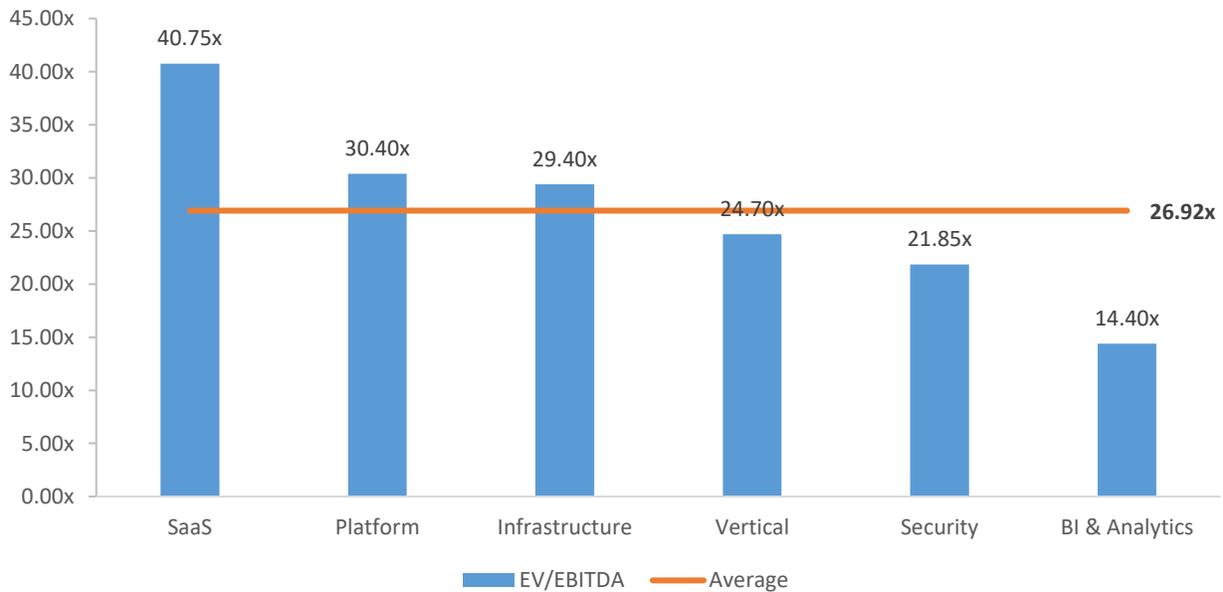
Source: Pitchbook

Software M&A Multiples

Software EV/Revenue Multiples, Q4 2018

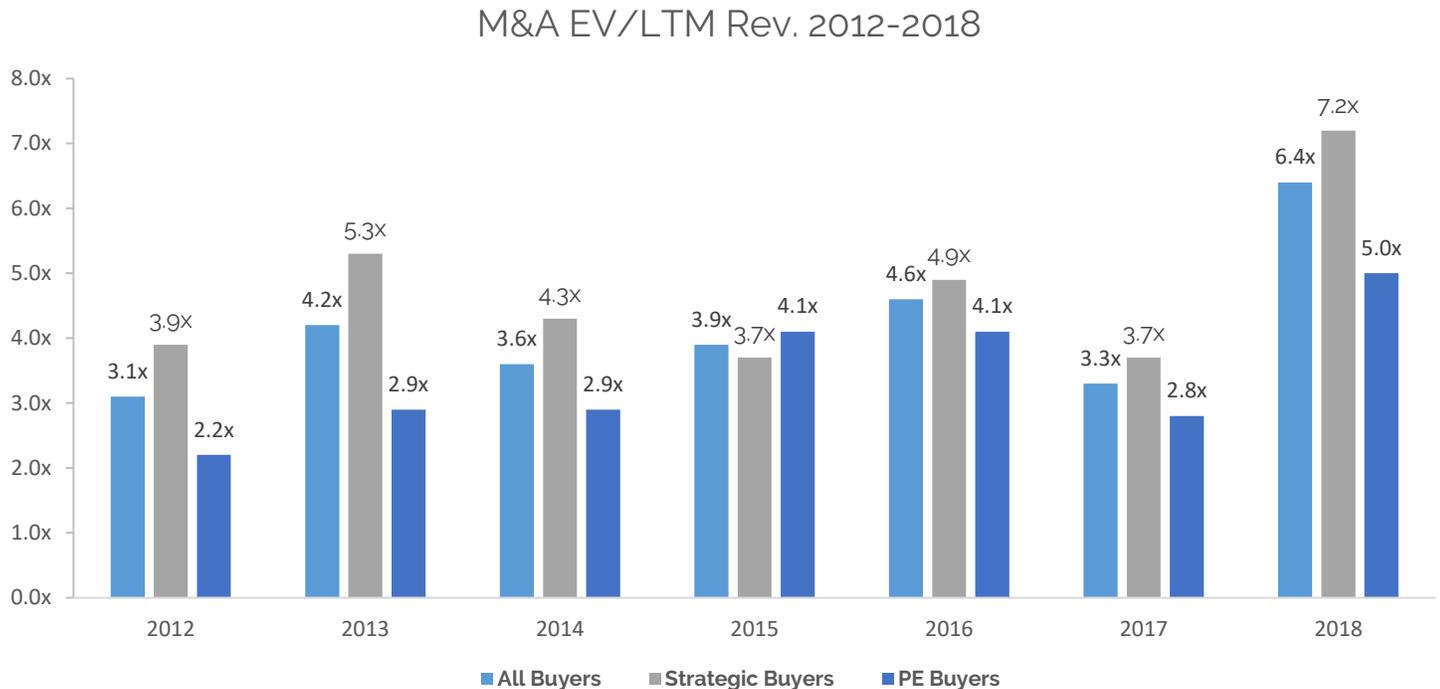


Software EV/EBITDA Multiples, Q4 2018



Source: Solganick & Co. Analysis

Software M&A EV/LTM Rev Multiple by Buyers, 2012 - 2018



Strategic buyers have the highest EV/LTM Rev multiple in 2018 at **7.2x**. Non-technology buyers are paying an average of 15% higher enterprise transaction value to acquire software companies.

Notes: Criteria based on global public target software M&A deals with enterprise transaction values greater than \$100MM

Source: Solganick & Co. Analysis

Outlook for 2019

We have crossed the high point and are beginning to see a slowdown in the M&A market. With the increased volatility of the stock market, unpredictable U.S. administration, failure of Brexit, and the U.S.-China trade war, slowdown of hiring, and other macroeconomic factors, we see the market beginning to slow further.

Q4 put on the brakes due to the U.S. government shutdown, which has severely affected small businesses and disturbed several government entities to reduce overall market activity. A spillover can be expected in the M&A market as small businesses through all verticals struggle keeping up with the current environment.

Potential trade wars and tariffs proposed by the U.S. administration can potentially threaten M&A activity both in the U.S. and especially cross-border. Cross-border M&A has slowed down in 2018 and has continued to slow in 2019 as trade wars and tariffs increase along with an unstable stock market.

For 2019, we expect deal volume in the software sector to continue to be strong and outperform the broader M&A market in general. Software companies looking to add new product offerings including artificial intelligence and machine learning, as well as analytics, are the highlights going into 2019.

Notable Software M&A Transactions, Q4 2018 (From Largest to Smallest EV Deal Size)

Date Announced	Acquirer	Target	Sector	Enterprise Value (\$M)
10/25/2018	 Microsoft		Software Development Applications	\$7,500
10/01/2018			Network Management Software	\$2,350
11/16/2018			Network Management Software	\$1,500
10/01/2018			Vertical Market Software	\$1,450
10/01/2018			Software Development Applications	\$730

10/05/2018			Network Management Software	\$525
11/15/2018			Vertical Market Software	\$400
12/13/2018			Social/Platform Software	\$245
12/26/2018			Other Software	\$230
12/13/2018			Other Software	\$176

Date Announced	Acquirer	Target	Sector	Enterprise Value(\$M)
10/24/2018			Network Management Software	\$175
10/12/2018			Network Management Software	\$173
11/09/2018			Network Management Software	\$113
12/02/2018			Other Software	\$100
10/23/2018			Other Software	\$72
11/19/2018			Application Software	\$70

12/20/2018			Other Software	\$45.12
10/22/2018			Other Software	\$38.3
10/05/2018			Other Software	\$25.24
11/55/2018			Network Management Software	\$25

Source: MergerMarket, Company Websites, Solganick & Co. Analysis

Publicly Traded Software Firms, Valuation Table

Enterprise Software	Stock Price (as of 12/31)	Market Cap (\$USD mm)	Enterprise Value (EV)/Revenue	EV/EBITDA
Microsoft Corporation [MSFT]	\$101.65	\$789.24	6.29	15.20
Oracle Corporation [ORCL]	\$45.15	\$173.31	4.27	10.71
Pegasystems Inc. [PEGA]	\$47.87	\$4.06	4.18	NA
SAP SE [SAP]	\$99.48	\$121.9	4.34	16.77
Average (Mean)			5.51	20.12
Banking and Financial Software	Stock Price (as of 12/31)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
CoreLogic, Inc. [CLGX]	\$33.41	\$ 2.83	2.35	10.40
NCR Corp. [NCR]	\$23.05	\$3.07	0.99	8.01
International Business Machines Corp. [IBM]	\$113.63	\$ 110.38	1.68	7.99
Fidelity National Information [FIS]	\$102.53	\$33.9	4.68	15.87
Fiserv, Inc. [FISV]	\$73.54	\$29.53	5.82	18.08
Jack Henry & Associates [JKHY]	\$126.495	\$9.8	6.10	19.5
SS&C [SSNC]	\$45.09	\$11.83	6.08	18.93
Average (Mean)			5.18	16.35

CRM	Stock Price (as of 12/31)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
Microsoft Corporation [MSFT]	\$101.65	\$789.24	6.29	15.20
Oracle Corporation [ORCL]	\$45.15	\$173.31	4.27	10.71
Salesforce.com, Inc. [CRM]	\$136.97	\$112.87	8.33	88.44
SAP SE [SAP]	\$99.48	\$121.9	4.34	16.77
Average (Mean)			6.36	36.05

Security Software	Stock Price (as of 12/31)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
Check Point Software [CHKP]	\$102.64	\$16.4	7.51	15.07
FireEye Inc. [FEYE]	\$16.21	\$3.25	3.77	NA
Fortinet, Inc. [FTNT]	\$70.40	\$12.48	6.05	42.21
Imperva, Inc. [IMPV]	\$55.69	\$1.98	4.70	333.26
Progress Software Corporation [PRGS]	\$35.46	\$ 1.65	3.87	10.59
Symantec Corp. [SYMC]	\$18.89	\$12.701	3.04	14.97
Average (Mean)			5.27	24.18

Software - NEC	Stock Price (as of 12/31)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
CommVault Systems, Inc. [CVLT]	\$59.08	\$ 2.83	3.08	72.57
PTC Inc. [PTC]	\$82.84	\$ 10.25	8.16	75.14
Splunk Inc. [SPLK]	\$105.14	\$ 17.316	8.86	NA
Average (Mean)			6.41	78.07

HR/HCM Software	Stock Price (as of 12/31)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
Cornerstone OnDemand [CSOD]	\$50.34	\$ 3.07	5.66	4847.73
Workday Inc. [WDAY]	\$159.55	\$ 35.61	2.03	NA
Average (Mean)			8.09	NA
Business Intelligence & Analytics	Stock Price (as of 12/31)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
Teradata Corporation [TDC]	\$38.36	\$4.74	2.03	29.03
MicroStrategy Inc. [MSTR]	\$ 127.52	\$151	1.66	34.18
Average (Mean)			1.63	22.47

Source: Yahoo Finance

Average EV/EBITDA are calculated excluding the companies with negative EV/EBITDA
Stock prices as of 12/31/2018.

Enterprise Value (EV) = market value of common stock + market value of preferred equity + market value of debt + minority interest - cash and investments.

M&A Spotlight



International Business Machines Acquires Red Hat, Inc. for \$34 Billion

October 28, 2018 - IBM (NYSE:IBM) and Red Hat (NYSE:RHT), the world's leading provider of open source cloud software, announced today that the companies have reached a definitive agreement under which IBM will acquire all of the issued and outstanding common shares of Red Hat for \$190.00 per share in cash, representing a total enterprise value of approximately \$34 billion.

IBM and Red Hat will be strongly positioned to address this issue and accelerate hybrid multi-cloud adoption. Together, they will help clients create cloud-native business applications faster, drive greater portability and security of data and applications across multiple public and private clouds, all with consistent cloud management. In doing so, they will draw on their shared leadership in key technologies, such as Linux, containers, Kubernetes, multi-cloud management, and cloud management and automation.

The acquisition of Red Hat reinforces IBM's high-value model. It will accelerate IBM's revenue growth, gross margin and free cash flow within 12 months of closing. It also will support a solid and growing dividend.

Source: <https://www.redhat.com/en/about/press-releases/ibm-acquire-red-hat-completely-changing-cloud-landscape-and-becoming-worlds-1-hybrid-cloud-provider>



Microsoft acquires GitHub for \$7.5 Billion

June 4, 2018 — Microsoft Corp. on Monday announced it has reached an agreement to acquire GitHub, the world's leading software development platform where more than 28 million developers learn, share and collaborate to create the future. Together, the two companies will empower developers to achieve more at every stage of the development lifecycle, accelerate enterprise use of GitHub, and bring Microsoft's developer tools and services to new audiences.

"Microsoft is a developer-first company, and by joining forces with GitHub we strengthen our commitment to developer freedom, openness and innovation," said Satya Nadella, CEO, Microsoft. "We recognize the community responsibility we take on with this agreement and will do our best work to empower every developer to build, innovate and solve the world's most pressing challenges."

Under the terms of the agreement, Microsoft will acquire GitHub for \$7.5 billion in Microsoft stock. Subject to customary closing conditions and completion of regulatory review, the acquisition is expected to close by the end of the calendar year.

GitHub will retain its developer-first ethos and will operate independently to provide an open platform for all developers in all industries. Developers will continue to be able to use the programming languages, tools and operating systems of their choice for their projects — and will still be able to deploy their code to any operating system, any cloud and any device.

Microsoft Corporate Vice President Nat Friedman, founder of Xamarin and an open source veteran, will assume the role of GitHub CEO. GitHub's current CEO, Chris Wanstrath, will become a Microsoft technical fellow, reporting to Executive Vice President Scott Guthrie, to work on strategic software initiatives.

*Source: <https://news.microsoft.com/2018/06/04/microsoft-to-acquire-github-for-7-5-billion/>
<https://www.reuters.com/article/us-spacetime-m-a-nokia/nokia-acquires-u-s-software-supplier-spacetime-insight-idUSKBN1I80JA>*

PE Buyout Spotlight



Blackstone



THOMSON REUTERS

Blackstone led Consortium Completes Partnership Deal with Thomas Reuters – Refinitiv

October 1, 2018 – A consortium led by Blackstone (NYSE: BX) announced that private equity funds managed by Blackstone (“Blackstone”) – together with Canada Pension Plan Investment Board (“CPPIB”) and GIC – have completed the previously announced partnership transaction with Thomson Reuters (TSX / NYSE: TRI) for Thomson Reuters’ Financial & Risk (F&R) business. The Blackstone-led consortium now owns 55 percent of the equity in a new corporation created to hold the F&R business, and Thomson Reuters retains a 45 percent equity stake, at an overall valuation of US\$20 billion. The Financial & Risk business is now known as Refinitiv.

Refinitiv is one of the world's largest providers of financial markets data and infrastructure, providing leading data and insights, trading platforms, and open data and technology platforms that connect communities of trading, investment, financial and corporate professionals. It also provides leading regulatory and risk management solutions to help customers anticipate and manage risk and compliance.

Through this investment and carve out of F&R by the Blackstone-led consortium, the new Refinitiv business expects to invest in a number of key areas to serve its customer base, which currently includes 40,000 institutions in over 190 countries. This includes further investing in content coverage, AI and analytics across its open data platforms Elektron and Eikon for buy-side, trading, wealth and banking customers.

“This is a unique moment in our 160-year history as the Financial & Risk business of Thomson Reuters now steps forward as Refinitiv,” said David Craig, CEO of Refinitiv. “We firmly believe that efficient, transparent and trusted markets are good for all and that Refinitiv’s role is at the heart of this, providing access to clean and consistent data on a global scale. With the backing of our investors, Refinitiv will continue to deliver the critical data, insights and open technology infrastructure that the market has come to expect while driving progress for our customers across trading, risk, banking, wealth and investment management and in areas such as financial crime and ESG investment. We look forward to exciting times ahead.”

Source: <https://www.blackstone.com/media/press-releases/article/blackstone-led-consortium-completes-partnership-transaction-with-thomson-reuters-for-financial-risk-business>

About Solganick & Co.

Solganick & Co., Inc. is an independent investment banking and M&A advisory firm focused exclusively on the global technology (software and IT services) and digital media industry sectors. We advise buyers and sellers of companies and efficiently execute M&A transactions that help increase shareholder value. Our professionals have advised on \$20+ billion in M&A transactions to date and have current clients and relationships globally with entrepreneurs, companies and leading private equity firms within the sectors we cover.

Please contact us for information regarding this report or to inquire about an M&A transaction.



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