

Software Investment Banking + M&A Advisory

Software M&A Update, YTD 2018

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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 others.

Disclosure: This is not an offer to purchase or trade in securities. Solganick & Co. relies on information and data provided by third parties and makes its best efforts to report accurate information. However, there is no assurance that the information provided herein is complete.

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

Worldwide

The global M&A value in Q1-Q3 2018 totaled US**\$ 2.75T** via **13,575** deals, which grew 22.3% from YTD 2017.

32 megadeals (deal value over US\$ 10B) were announced in Q1-Q3, two more than the FY 2017 total.

A **\$855.6bn** Q3 2018 deal value shows a **5%** decrease from Q3 2017 and **35.4%** decrease from Q2 2018, the lowest Q3 figure since 2013.

A **53%** increase was shown in the telecommunications industry from US\$ **181.6B** in Q1-Q3 in 2017 to US\$ **277.9.5B** in Q1-Q3 2018.

The cross-border transaction is dropped by **4%** in deal value in comparison to Q1-Q3 2017.

United States

U.S. M&A value in Q3 2018 totaled US**\$ 333.9B**, U.S. M&A reached its second-highest total by both deal value and count for the Q1-Q3 period on Mergermarket record with US\$ **1.1T** and **4,100** transactions tallied.

Average deal size increased 33.9% to US\$ 279.1M in the year to date compared to US\$ 208.5M in Q1-Q3 2017.

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

There was a **19.5%** fall in the value of inbound M&A into the US overall from Q1-Q3 2017 (US\$ 247.8B) to H1 2018 (US\$ 199.4B).

Software

Total software M&A **transaction volume** in Q1-Q3 2018 increased by **31%** compared to Q1-Q3 2017, from **318** to **417**.

Total **transaction value** in Q1-Q3 2018 **rose by 264%** over Q1-Q3 2017, from **\$16 bn** to **\$60 bn**.

Median EV/Revenue Multiple: 5.77×

Median EV/EBITDA Multiple: 26.92x

The software industry continues to be very active:

- Broadcom acquired CA
- Technologies for \$18.9 billionDuo Security acquired by
- Cisco Systems for \$2.35 billion • Accruent acquired by Fortive
- for \$2 billionEze Software Group

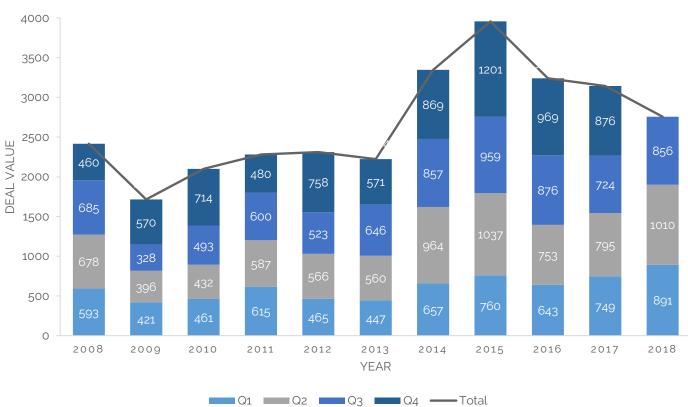
acquired by SS&C Technologies for \$1.45 billion

Source: MergerMarket 2018, JEGI, Deologic, TM Capital



M&A Activity in Q3 2018

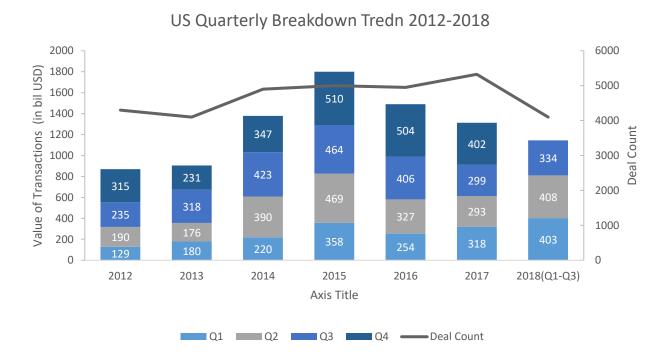
Global M&A Deal Value - Quarterly Comparison



VALUE OF DEALS (\$USD BN)

Source: MergerMarket 2018, JEGI

United States M&A Deal Value – Quarterly Comparison

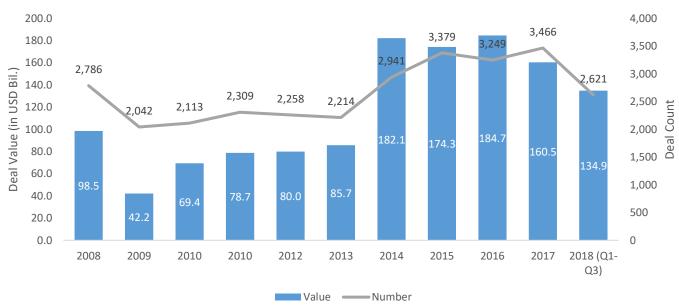


Source: MergerMarket

Software M&A Activity in Q3 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 JEGI's research.

Global Software M&A Volume and Value, 2008-2018E

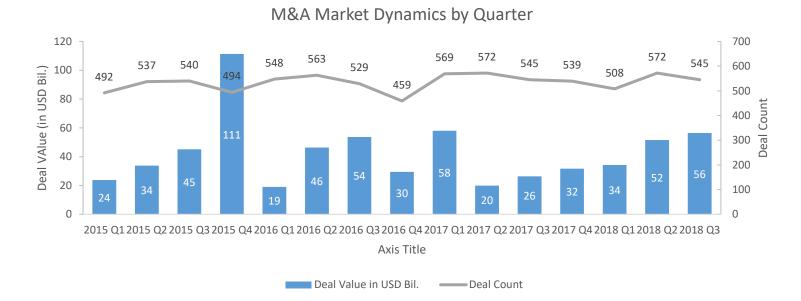


Global M&A Software 2008-2018

Source: Institute for Mergers, Acquisitions and Alliances



Global Software Transactions – 2015 to 2018 Value and Volume Comparison by Quarter



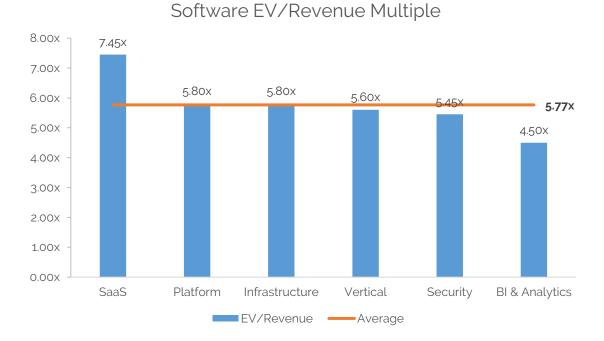
Q3 2018 Key Trends

- Total software **transaction volume** in Q3 2018 **decreased by 5%** over Q2 2018, from 572 to 545. This followed a 13 percent rise in Q2 2018.
- Total **transaction value** in Q3 2018 **increased by 9%** over Q2 2018, from \$51.6 billion to \$56.4 billion. Of note, this was the fi fth consecutive quarterly increase in aggregate value.
- There were 395 financially sponsored transactions in the 1st 3 Quarters of 2018 with an aggregate value of \$40.2 billion, representing 24% of the total volume and 28% of the total value, respectively.

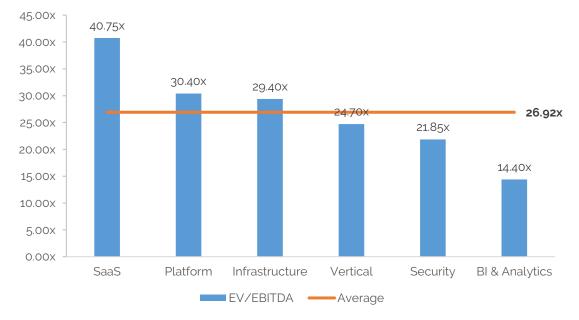
Source: MergerMarket, Berkery Noyes



Software M&A Multiples



Software EV/EBITDA Multiple



Source: Solganick & Co. Analysis



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



M&A EV/LTM Rev. 2012-2018

Strategic buyers have the highest EV/LTM Rev multiple in 2018. 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 2018

Software vendors will continue to accelerate their push towards cloud based solutions and strengthen their offerings in high-growth areas like Artificial Intelligence, Machine Learning and Internet of Things.

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 may continue to slow further as trade wars and tariffs increase.

M&A activities started strong in 2018 and are expected to stay active throughout the remainder of the year. The economy presents a favorable condition for M&A activities, as general economic conditions remain strong heading into the second half of the year.

The increase in corporate purchasing power due to an extended period of strong earnings has enabled strategic buyers to pay more for acquisitions. The S&P 500 EV-to-EBITDA ratio is currently at 16.16x, compared to 8.6x just five years ago. Over the same time period, EBITDA margin for the S&P 500 increased by over 14%, reaching 20.75% in Q3 2018 comparing to Q3 2017. The expanding valuations in public markets coupled with strong corporate earnings have created a buoying effect on market transaction multiples.

For the remainder of 2018, we expect deal volume in the software sector to continue to be strong, yet slightly down from its peak in 2017.

Notable Software M&A Transactions, Q3 2018

Date Announced	Acquirer	Target	Sector	Enterprise Value(\$M)
9/27/2018	globalpayments	SICOM	Software	\$415
9/25/2018	aras corp	Comet Solutions, Inc.	Software	NA
9/25/2018	AMT direct	NETfacilities	Software	NA
9/24/2018	Echnologies	Greenlight	Software	NA
9/19/2018	SIEMENS Ingenuity for life	LW	Software	NA
9/11/2018	ideagen	inspection xpert	Software	\$7
9/4/2018	XAtlassian	OpsGenve	Software	\$295
9/4/2018	Евіх	Solutions for Financial Services	Software	\$19
8/29/2018	move		Application Software	\$210
8/15/2018	AKKR	SUGARCRM	Application Software	\$190

Date Announced	Acquirer	Target	Sector	Enterprise Value(\$M)
8/10/2018	AMADEUS Your technology partner	TravelClick	Application Software	\$1,520
8/8/2018	intertek	alchemy	Application Software	\$480
8/3/2018	••• REALPAGE Outpeform	LeaseLabs	Application Software	\$103
7/31/2018	Docu Sign.	springcm	Application Software	\$220
7/31/2018	Ø FORTIVE	accruent	Application Software	\$2,000
7/31/2018	mimecast	: solebıt	Security	\$96
7/31/2018	SSIC	EZE SOFTWARE GROUP	Application Software	\$1,450
7/26/2018	@iMPER\A `		Security	\$140
7/25/2018	Srubhub hegy entre	scvngr	Application Software	\$390
7/25/2018	stamps com.	MetaPack	Application Software	\$230



Date Announced	Acquirer	Target	Sector	Enterprise Value(\$M)
7/24/2018	Gigamon	ICEBRG	Security	\$100
7/20/2018	STATE STREET.	Charles River	Application Software	\$2,600
7/17/2018	BC Partners	GLOBAL	Application Software	\$1,400
7/17/2018	Ultimate SOFTWARE	people C	Application Software	\$300
7/11/2018	BROADCOM [®]	technologies	Infrastructure Management	\$18,900
7/10/2018	AT&T	ALIEN VAULT	Security	\$600
7/10/2008	THOMA BRAVO	്ര Centrify [,]	Security	\$500

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



Publicly Traded Software Firms, Valuation Table

Enterprise Software	Stock Price (as of 10/29)	Market Cap (\$USD mm)	Enterprise Value (EV)/Revenue	EV/EBITDA
Microsoft Corporation [MSFT]	\$103.85	\$797,180	7.09	17.41
Oracle Corporation [ORCL]	\$47.02	\$178,140	4.52	11.17
Pegasystems Inc. [PEGA]	\$51.16	\$4,020	4.80	NA
Red Hat, Inc. [RHT]	\$169.63	\$29,850	6.42	33.71
SAP SE [SAP]	\$104.28	\$125,110	4.72	18.20
Average (Mean)			5.51	20.12

Banking and Financial Software	Stock Price (as of 10/29)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
CA Technologies Inc. [CA]	\$44.17	\$ 18,470	4.32	14.31
CoreLogic, Inc. [CLGX]	\$39.50	\$ 3,180	2.87	13.11
NCR Corp. [NCR]	\$23.81	\$2,810	102	7.51
International Business Machines Corp. [IBM]	\$119.64	\$ 109,200	1.89	9.12
Fidelity National Information [FIS]	\$99.13	\$32,600	4.75	16.51
Fiserv, Inc. [FISV]	\$77.18	\$31,250	6.34	19.79
Jack Henry & Associates [JKHY]	\$146.08	\$11,290	7.60	24.67
SS&C [SSNC]	\$47.72	\$11,360	8.46	25.78
Average (Mean)			5.18	16.35



CRM	Stock Price (as of 10/29)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
Microsoft Corporation [MSFT]	\$103.85	\$797,180	7.09	17.41
Oracle Corporation [ORCL]	\$47.02	\$178,140	4.52	11.17
Salesforce.com, Inc. [CRM]	\$130.99	\$99,120	9.11	97.41
SAP SE [SAP]	\$104.28	\$125,110	4.72	18.20
Average (Mean)			6.36	36.05

Security Software	Stock Price (as of 10/29)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
CA Technologies Inc. [CA]	\$44.17	\$18,470	4.32	14.31
Check Point Software [CHKP]	\$106.84	\$16,690	8.31	16.53
FireEye Inc. [FEYE]	\$16.41	\$3,150	4.21	NA
Fortinet, Inc. [FTNT]	\$77.54	\$13,110	7.77	58.77
Imperva, Inc. [IMPV]	\$55.28	\$1,940	4.48	NA
Progress Software Corporation [PRGS]	\$30.93	\$ 1,390	3.54	9.69
Red Hat, Inc. [RHT]	\$169.63	\$29,850	6.42	33.71
Symantec Corp. [SYMC]	\$18.00	\$11,500	3.08	12.04
Average (Mean)			5.27	24.18

Software - NEC	Stock Price (as of 10/29)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
CA Technologies Inc. [CA]	\$44.17	\$18,470	4.32	14.31
CommVault Systems, Inc. [CVLT]	\$55.15	\$ 2 ,520	3.19	141.35
PTC Inc. [PTC]	\$79.05	\$ 9,310	8.98	78.55
Splunk Inc. [SPLK]	\$93.10	\$ 13,650	9.15	NA
Average (Mean)			6.41	78.07



HR/HCM Software	Stock Price (as of 10/29)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
Cornerstone OnDemand [CSOD]	\$47.73	\$ 2,800	5.41	NA
Workday Inc. [WDAY]	\$122.75	\$ 26,750	10.76	NA
Average (Mean)			8.09	NA

Business Intelligence & Analytics	Stock Price (as of 10/29)	Market Cap (\$USD mm)	EV/Revenue	EV/EBITDA
Teradata Corporation [TDC]	\$34.59	\$4,120	1.76	26.41
MicroStrategy Inc. [MSTR]	\$ 121.71	\$1,400	1.49	18.53
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 10/29/2018.

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





Broadcom Acquired CA Technologies for \$18.9 Billion

San Jose, CA and New York, NY – July 11, 2018 – Broadcom Inc. (NASDAQ:AVGO), a leading semiconductor device supplier to the wired, wireless, enterprise storage, and industrial end markets, and CA Technologies (NASDAQ:CA), one of the world's leading providers of information technology (IT) management software and solutions, today announced that the companies have entered into a definitive agreement under which Broadcom has agreed to acquire CA to build one of the world's leading infrastructure technology companies.

Under the terms of the agreement, which has been approved by the boards of directors of both companies, CA's shareholders will receive \$44.50 per share in cash. This represents a premium of approximately 20% to the closing price of CA common stock on July 11, 2018, the last trading day prior to the transaction announcement, and a premium of approximately 23% to CA's volume-weighted average price ("VWAP") for the last 30 trading days. The all-cash transaction represents an equity value of approximately \$18.9 billion, and an enterprise value of approximately \$18.4 billion.

Hock Tan, President and Chief Executive Officer of Broadcom, said, "This transaction represents an important building block as we create one of the world's leading infrastructure technology companies. With its sizeable installed base of customers, CA is uniquely positioned across the growing and fragmented infrastructure software market, and its mainframe and enterprise software franchises will add to our portfolio of mission critical technology businesses. We intend to continue to strengthen these franchises to meet the growing demand for infrastructure software solutions."

The transaction is expected to drive Broadcom's long-term Adjusted EBITDA margins above 55% and be immediately accretive to Broadcom's non-GAAP EPS. On a combined basis, Broadcom expects to have last twelve months non-GAAP revenues of approximately \$23.9 billion and last twelve months non-GAAP Adjusted EBITDA of approximately \$11.6 billion.

Source: CA Technologies



FORTIVE accruent

Fortive acquired Accruent To Create 'Industry-Leading IoT Portfolio'' For \$2 Billion

Fortive Corporation (NYSE: FTV) has entered into a definitive agreement with Genstar Capital to acquire Accruent, a privately-held, leading provider of physical resource management software for approximately \$2.0 billion in cash. The acquisition is subject to customary closing conditions, including regulatory approvals, and will be financed with available cash and proceeds from borrowings. Fortive also announced today the completion of its acquisition of Gordian.

James A. Lico, president and CEO of Fortive, said Accruent's software assets have strong upsell and cross-sell capabilities across the IoT resource management market. "The complementary strengths of Accruent, Gordian and Fluke Digital Systems will create an industry-leading IoT portfolio consisting of connected devices, software-enabled workflows, and data analytics," said Lico in a statement.

Austin, Texas-based Accruent has more than 10,000 global customers and manages more than 7.3 billion assets that leverage the company's software to improve the performance and management of physical resources, while also extending the life cycle of those assets.

The transaction is expected to close in the third quarter of 2018. Fortive expects Accruent to generate approximately \$270 million of revenue in 2018. Upon closing, Accruent will become part of Fortive's Field Solutions platform (comprising Fluke, Qualitrol, Industrial Scientific and Gordian) within Fortive's Professional Instrumentation segment.

Resource: Global Legal Chronicle, CRN







State Street to Acquire Charles River Development for \$2.6 Billion

BOSTON--(BUSINESS WIRE)--State Street Corporation (NYSE:STT) today announced that it has entered into a definitive agreement to acquire Charles River Systems, Inc. (Charles River Development), a premier provider of investment management front office software tools and solutions. Under the terms of the agreement, State Street will purchase Charles River Development in an all cash transaction for \$2.6 billion. The acquisition, which is subject to regulatory approvals and customary closing conditions, is expected to be completed in the fourth quarter of 2018.

When integrated with State Street's existing front, middle and back office capabilities, Charles River Development's front-office systems will enable State Street to deliver a global front-to-back platform for asset managers and asset owners that will be unique in the investment servicing industry. This interoperable platform, supported by deep enterprise data management capabilities, will enable investment workflows, provide advanced data aggregation, analytics and compliance tools, and connect and exchange data with other industry platforms and providers.

Charles River Development is a privately held company headquartered in Burlington, Massachusetts with offices in North America, Europe and the Asia-Pacific region. With total revenues of more than \$300 million in 2017, its primary focus is providing solutions that automate front and middle office investment management functions across asset classes on a single platform. Today, Charles River Development serves more than 300 clients across institutional, wealth, asset owner and alternative market segments, including 49 of the top 100 asset managers that in aggregate have more than \$25 trillion in assets under management.

The \$2.6 billion purchase price is expected to be financed through the suspension of approximately \$950 million of share repurchases in the second quarter of 2018 and during the remainder of 2018, and, subject to market conditions, the remainder of the purchase price through the issuance of equity, with approximately two-thirds of such equity expected to be in the form of common stock and one-third in preferred stock.

Resource: State Street



About Solganick & Co.

Solganick & Co., Inc. is an independent investment banking and M&A advisory firm focused exclusively on the global software and tech-enabled services 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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