



Mufson Howe Hunter

INVESTMENT BANKERS FOR GROWTH

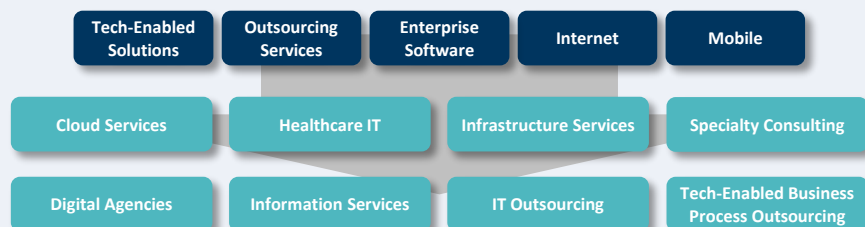
TECHNOLOGY SERVICES MONTHLY

Driving Success in the Salesforce Ecosystem

October 2018

Welcome to the MHH Technology Services Newsletter!

Welcome to the (belated) October edition of the Mufson Howe Hunter Technology Services Monthly. This month, we highlight the role of channel partners in the Salesforce ecosystem. Each month, our team aims to provide you with a newsletter that contains thought-provoking content and analysis, as well as updates on macroeconomic themes, equity capital market performance, private capital market trends and noteworthy M&A activity—all of which is relevant to our core industry sectors:



We hope you find this information valuable, and we welcome any comments or suggestions.

Sincerely,

Brandon K. Eck

Managing Director, Head of Technology Services

What we are reading...



- [Azure Stack: An extension of Azure](#)
- [Ten IT-enabled business trends for the decade ahead](#)
- [Getting More From AMS Providers](#)
- [Infosys Built Its Global Machine With Indian Workers. Can It Adjust to Trump's 'Hire American'?](#)

Select 2018 Franchise Themes



Digital Transformation & Advisory: Business processes will continue to migrate from legacy systems to modern technology (cloud, edge computing, analytics, IoT, blockchain, AI, etc.). We expect to see continued growth in the digital transformation consulting (DTC) channel. Trusted advisors with the ability to sell across senior business stakeholders within an organization (CMO, CRO, CCO, COO, CIO) and who provide thought leadership, commercial insights, targeted research and proprietary IP will be leaders in the category. For additional insight see our [November 2017 TSM](#).



Regulation Technology: The rapid proliferation of new and increasingly complex regulations will continue to drive demand for RegTech solutions that provide operational efficiencies and cost benefits when applied to compliance and risk management practices. Increased regulation isn't just a temporary challenge for global financial institutions – it's the new reality. Financial services firms' average costs to meet their obligations are \$60 million; some are spending up to \$500 million on compliance with KYC and Customer Due Diligence (Thomson Reuters). For additional insight see our [August 2017 TSM](#).



Healthcare IT: The sweeping paradigm shift toward population health management and value-based reimbursement models – will continue to drive robust demand for healthcare IT products and services. Consulting Services, Data Analytics and Patient Engagement Technology will comprise a growing portion of the overall HCIT market, reaching an estimated \$74 billion in annual spending by 2021 (Markets and Markets and MHH calculations). Service providers and solutions that improve interoperability among myriad disparate systems will be in high demand for many years to come. For additional insight see our [May 2017](#) and [September 2017 TSM](#).



IoT-Optimized Infrastructure Services: "Connected things" will streamline vendor operational models while reducing customer costs. IoT will introduce tons of useful data to the cloud that needs to be captured and effectively managed. IaaS and PaaS companies will be a direct beneficiary of this trend. Cisco expects database, analytics and IoT workloads to account for 22% of total workloads by 2020 (Cisco, 2016). For additional insight, see our [June 2017 TSM](#).



Blockchain in Financial Services & Beyond: Although most widely associated with cryptocurrencies, some of the largest financial services firms are exploring using blockchain technology to improve high-risk and/or time-consuming operations, including cross-border payments, AML & KYC compliance, IAM security protocols and smart contracts. We also expect to see further adoption across a variety of other industries, including healthcare, automotive, manufacturing and retail, among others. For additional insight see our [December 2017 TSM](#).

TECHNOLOGY SERVICES PRACTICE OVERVIEW

The Mufson Howe Hunter Technology Services Group serves growth-oriented, rapidly scalable businesses that leverage proprietary and enabling technologies to address the evolving needs of modern enterprise customers. We apply deep industry expertise and broad transaction experience to provide thoughtful, tailored advice and solutions for our clients. **Our clients turn to us for outstanding M&A advisory and capital-raising execution.**

Senior Banking Team



Brandon Eck
Managing Director,
Head of Technology Services

215.399.5411 | beck@mhhco.com

Prior Experience:

- Managing Director, Head of Technology & Services, Janney Montgomery Scott
- Principal, Catalyst Securities
- Principal, RCW Mirus

Education:

- Gettysburg College (BA)

18+ Years of
Experience

60+ Transactions
Completed



Andrew Wilson
Vice President,
Technology Services

215.399.5406 | awilson@mhhco.com

Prior Experience:

- Senior Associate, Technology & Services, Janney Montgomery Scott
- Associate, TMT, J.P. Morgan
- Attorney, M&A, Wilson Sonsini Goodrich & Rosati

Education:

- Duke University (JD, MBA)
- U. North Carolina, Chapel Hill (BA)

8+ Years of
Experience

20+ Transactions
Completed

Sector Coverage

Mufson Howe Hunter

- Sell-side Advisory
- Private Placements
- Financial Advisory
- Buy-side Assignments
- Recapitalizations
- Fairness Opinions



Business Model Coverage

Tech-Enabled Solutions

Outsourcing Services

Enterprise Software

Internet

Mobile

Driving Success in the Salesforce Ecosystem

In 2017, every dollar of Salesforce revenue generated nearly four dollars in channel partner revenue. By 2022, that will increase to over five dollars.²

The Need for Salesforce SI Channel Partners. Few, if any, Enterprise customers are simply using “out-of-the-box” solutions from Salesforce. Rather, using Salesforce as a platform, these companies make substantial investments in ancillary software and services, delivered via third-party Systems Integration (SI) Channel Partners. Channel partner services run the gamut from strategy to professional services / consulting, managed services, software design and system implementation. As stated on CRM’s company blog, **“partners will always be the lifeblood of the ever-expanding Salesforce ecosystem”¹** with Salesforce AppExchange and Salesforce Platform enabling tremendous opportunities for a wide array of channel partners.

Leading Salesforce SI Channel Partners

accenture

Accenture is the largest provider of Salesforce services globally, with roughly 8,000 dedicated Salesforce practitioners³. Accenture purchased Cloud Sherpas in 2015 and PHASEONE in 2017, starting the Salesforce SI consolidation trend.

Deloitte

One of the largest and most global salesforce partners, with more than 4,400 Salesforce practitioners³ across more than 30 countries.

Cognizant

Cognizant delivers complex Salesforce work – especially in healthcare and finance, with more than 3,000 Salesforce-skilled practitioners³.

Capgemini

Capgemini has deep expertise in Europe and the financial services sector. The company has more than 3,000 Salesforce practitioners.³

wipro

With the October 2016 acquisition of Appirio, Wipro now has more than 1,000 practitioners³ dedicated to Salesforce

IBM

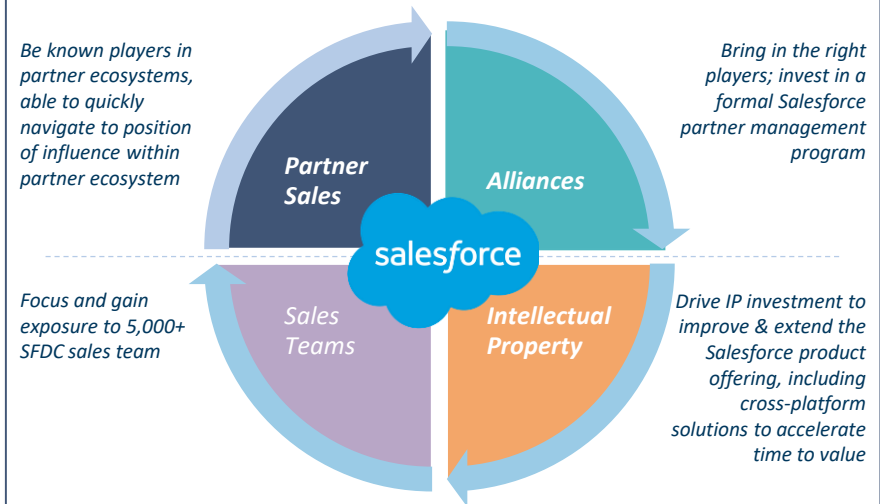
Previously a smaller partner in Salesforce’s ecosystem, IBM became a major player when the company acquired one of the largest and longest-standing specialists, Bluewolf, in early 2016.

Winning Ingredients: Salesforce SI Channel Partners

Harnessing and Driving Value in the Salesforce Ecosystem

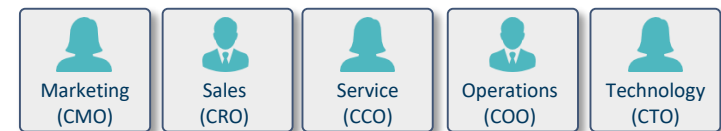
Strategy, Repeatable Services & Unique IP Sets:

Advisory & strategy lead to programmatic customer engagement, providing a multi-year view of customer needs and engagement driven demand



Persona Driven Engagement

Engage with the right personas through...



Fully leverage long-term relationships

Sell across personas within an organization

Provide personalized and deliberate messaging throughout

Lead with thought leadership, commercial insights, and targeted research

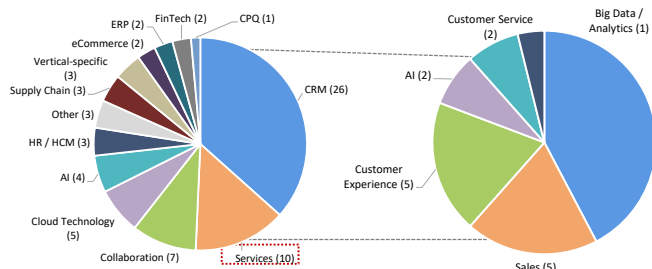
¹ Why Everyone Wins in the Salesforce Economy (Dec 2017) | ² IDC | ³ Forrester, Q3 2017 Wave Report

Driving Success in the Salesforce Ecosystem

Salesforce Ventures Remains Active. Salesforce Ventures, the company's corporate investment group, invests in emerging technology companies and service providers that have potential to extend the reach and value proposition of the Salesforce ecosystem. Typically co-investing alongside traditional venture capital firms, the company **has invested over \$1 billion in ecosystem partners since 2010.**¹ Salesforce invests heavily in companies that are listed on the AppExchange and/or built on the Force.com platform, with nearly half of the company's 50 largest investments featured on AppExchange.¹

Salesforce Ventures Investment Segmentation¹

Salesforce-Invested Companies, 2016-2017










- Majority of investments focused around core CRM capabilities
- Distinct focus on consulting and implementation services

Large Acquirers Fishing in the Salesforce Pond²

Noteworthy acquisitions of former Salesforce Ventures portfolio companies

Acquirers		
accenture	Cloud Sherpas	Provider of cloud computing systems & managed Salesforce-oriented development services
	PHASEONE	Provider of Salesforce cloud application services
Capgemini	LYONSCG	Provider of digital media consulting and app dev. services
GE Digital	servicemax	Provider of cloud-based field service management platform
IBM	bluewolf	Provider of Salesforce cloud-enabled consulting and implementation services
Sapient	vertiba	Provider of cloud computing and software development and integration services
wipro	APPIRIO	Provider of enterprise-grade cloud services (e.g., SaaS, PaaS) to improve business agility

Recent Relevant Salesforce SI Partner Investments³

Investor	Target	Description
salesforce ventures	 Jul-2018	<ul style="list-style-type: none"> Merger & Acquisition Provider of salesforce consulting services intended to help manage salesforce platform.
AllCloud	 Jul-2018	<ul style="list-style-type: none"> Merger & Acquisition Provider of professional cloud computing services.
PERFICIENT	 Apr-2018	<ul style="list-style-type: none"> Merger & Acquisition Provider of IT consultancy services.
pwc	 Nov-2017	<ul style="list-style-type: none"> Merger & Acquisition Provider of business consultancy services.
AUDACIA	 Oct-2017	<ul style="list-style-type: none"> Buyout Provider of information technology consulting services.
PERSISTENT	 Jul-2017	<ul style="list-style-type: none"> Merger & Acquisition Provider of salesforce consultancy services intended to digitize business processes.
PS&C	 Jan-2018	<ul style="list-style-type: none"> Merger & Acquisition Provider of business management and consulting services.

¹ True Blue Partners (Nov 2017) | ², ³ Pitchbook and MHH Research

U.S. ECONOMIC INDICATORS

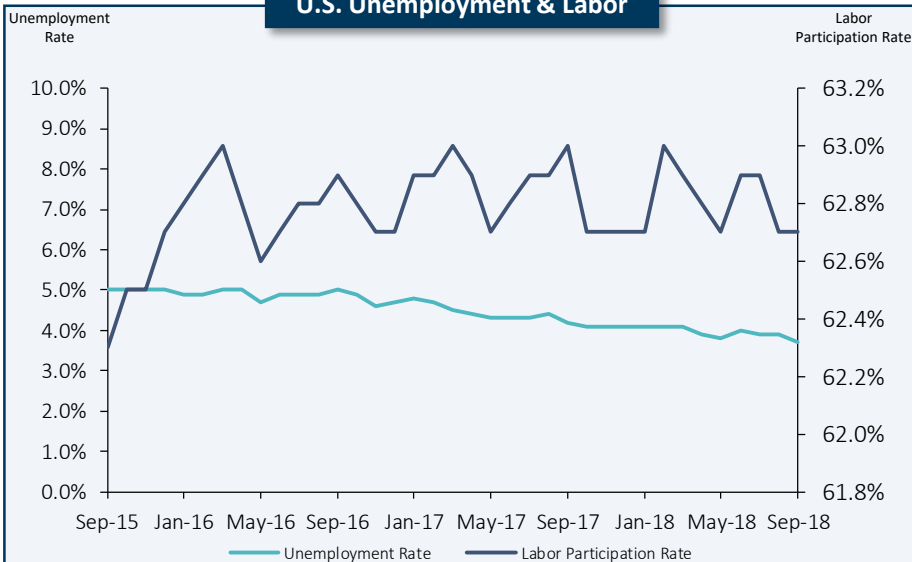
U.S. Market Indices



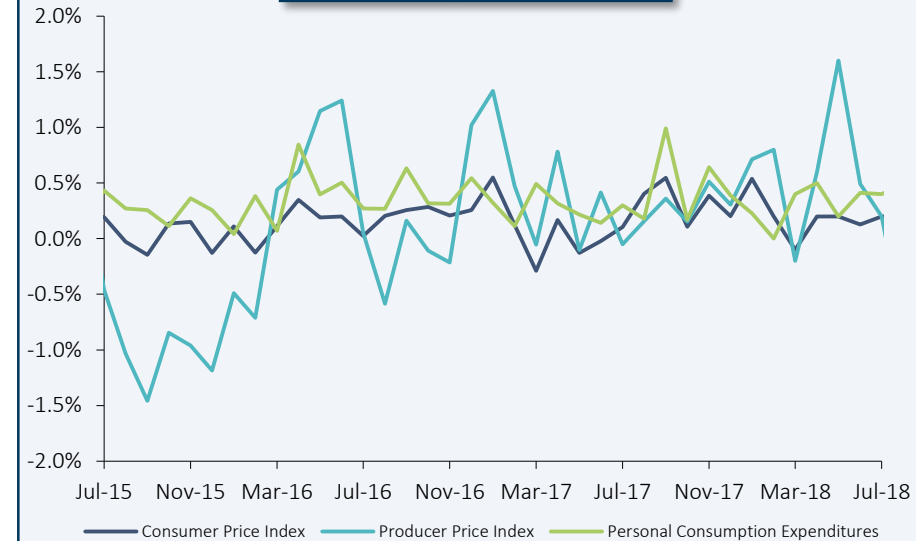
10-Year Treasury Rate



U.S. Unemployment & Labor















U.S. PPI, CPI and PCE



U.S. TECH SERVICES MIDDLE-MARKET PRIVATE EQUITY: BUY-OUT ACTIVITY

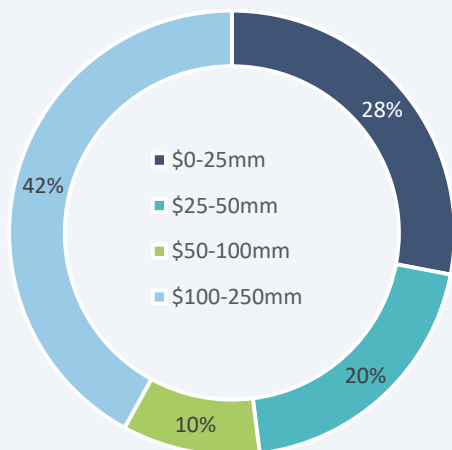
Select September 2018 Buy-Outs**

Company	Investor	Date	Sector
 AppRev	 AQUILINE CAPITAL PARTNERS LLC	Sep 27	Healthcare IT
 core ENTERPRISE TECHNOLOGY SOLUTIONS	 TAILWIND CAPITAL	Sep 17	Information Services
 infiniti	 BRIDGER CAPITAL PARTNERS	Sep 11	IT Outsourcing
 CLEARPointe	 WESTVIEW CAPITAL PARTNERS	Sep 10	IT Outsourcing
 STAT (S) MED	 ANCOR ANCOR CAPITAL PARTNERS	Sep 7	Infrastructure Services
 Transportation Insight	 GRYPHON INVESTMENTS	Sep 4	IT Outsourcing

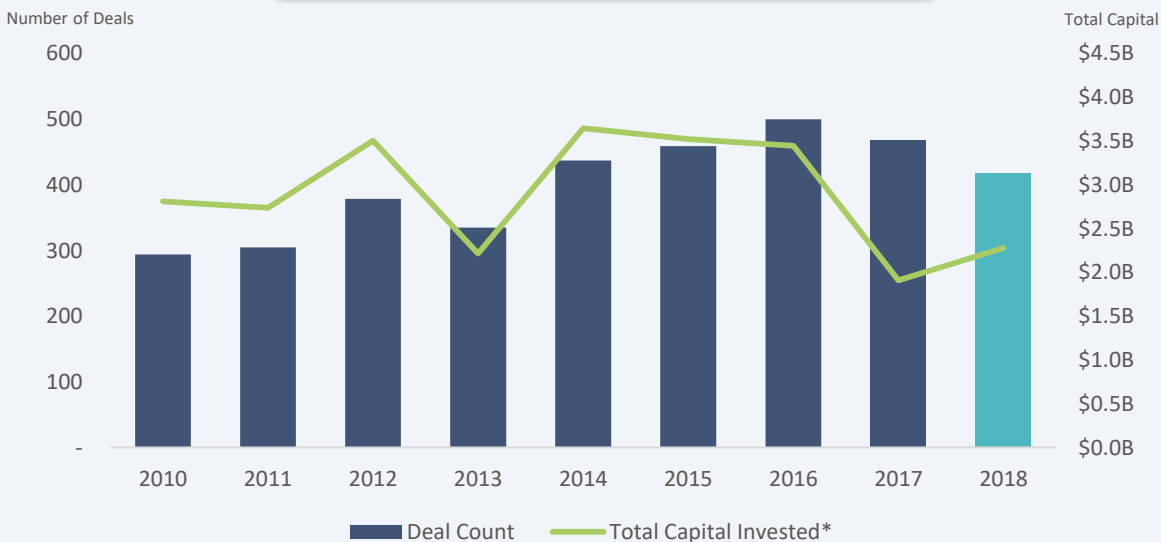
PE Buy-Outs, Trailing 8 Quarters, as of September 30



PE Buy-Outs, by Deal Size



PE Buy-Outs, Historical Annual, as of September 30









Source: Pitchbook

*For deals with announced transaction value

**Please contact the MHH Technology Services Group directly for any information regarding valuation and deal size

U.S. TECH SERVICES MIDDLE-MARKET PRIVATE EQUITY: MINORITY ACTIVITY

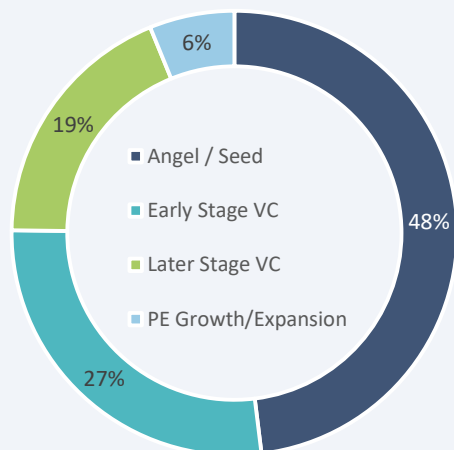
Select September 2018 Minority Deals**

Company	Stage	Date	Sector
 netradyne	Early Stage VC	Sep 27	Infrastructure Services
 MAYEN	Early Stage VC	Sep 26	Healthcare IT
 CAMP4	Early Stage VC	Sep 25	Healthcare IT
 ENDOTRONIX	Later Stage VC	Sep 14	Healthcare IT
 wasabi hot cloud storage	Early Stage VC	Sep 12	Information Services
	Early Stage VC	Sep 10	Healthcare IT

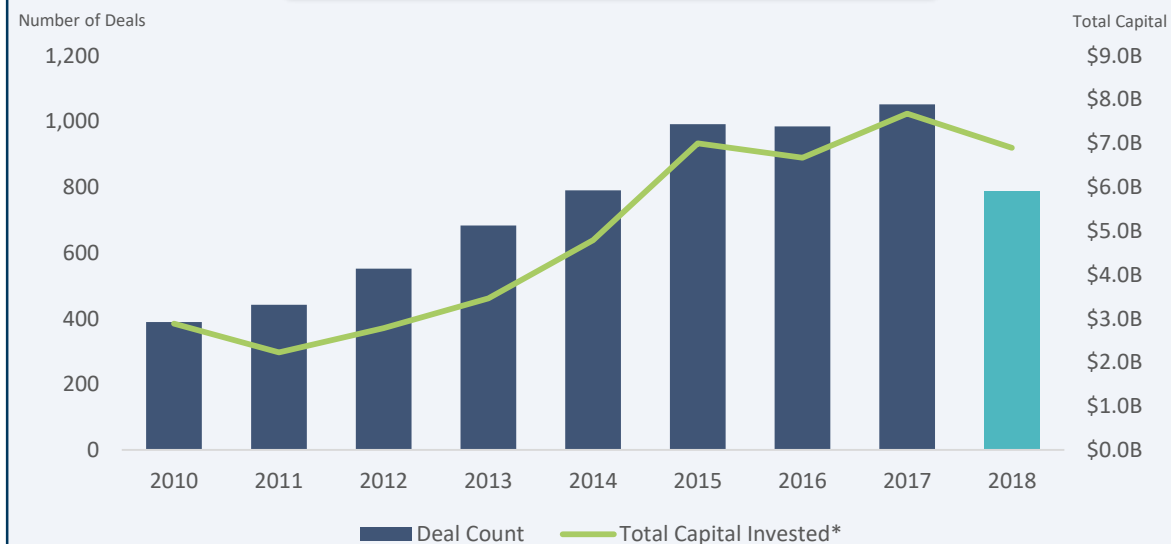
PE Minority, Trailing 8 Quarters, as of September 30



PE Minority, by Stage



PE Minority, Historical Annual, as of September 30



Source: Pitchbook

*For deals with announced transaction value

**Please contact the MHH Technology Services Group directly for any information regarding valuation, deal size, and investors

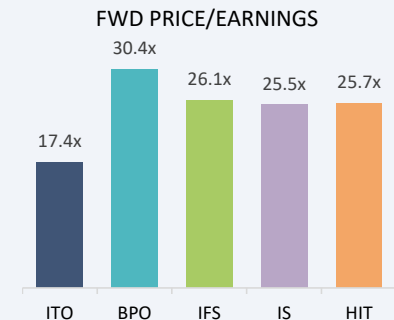
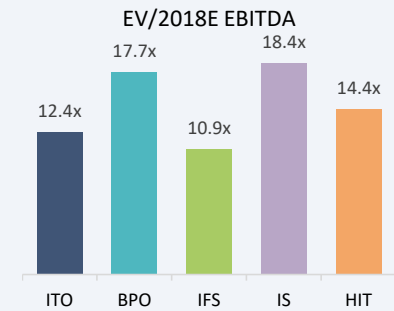
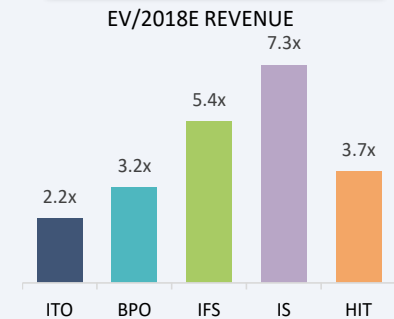
VALUATION & PERFORMANCE METRICS

ITO	IT Outsourcing: technology services and consulting solutions, including engineering, application development, knowledge management and business process management
BPO	Business Process Outsourcing: services for administering and managing select technology-enabled business processes, including outsourced product development, finance and accounting, human resources, research and analytics, and other industry-specific processes
IFS	Infrastructure Services: providers of managed, hosting and consulting services around planning, designing, implementing and managing mission-critical IT infrastructure
IS	Information Services: providers of independent rating, benchmarking, research and data analytic services
HIT	Healthcare IT: software and technology-related services focused on the design, development, creation, use and maintenance of information systems for the healthcare industry

Sector Indices Performance, as of September 30, 2018

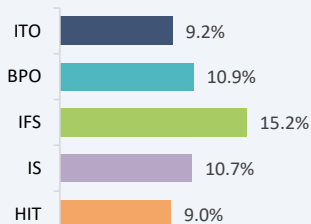


Median Valuation Metrics

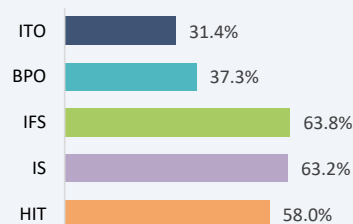


Median Operational KPIs

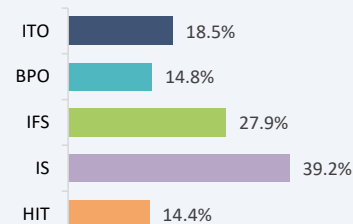
2018E REVENUE GROWTH



LTM GROSS MARGIN



LTM EBITDA MARGIN



IT OUTSOURCING

Valuation Metrics

(\$ in millions)

Company	Market Cap ⁽¹⁾	Operating Metrics						Valuation Multiples					
		Revenue		LTM Gross Margin	EBITDA ⁽²⁾		LTM EBITDA Margin	EV / Revenue			EV / EBITDA		
		2018E	2019E		2018E	2019E		LTM	2018E	2019E	LTM	2018E	2019E
Accenture plc (ACN)	\$109,055	\$40,601	\$43,698	31.4%	\$6,892	\$7,337	17.1%	2.6x	2.6x	2.4x	13.5 x	15.1 x	14.2 x
Cognizant Technology Solutions Corporation (CTSH)	\$44,765	\$16,167	\$17,547	38.7%	\$3,334	\$3,848	20.6%	2.7x	2.6x	2.4x	12.0 x	12.4 x	10.7 x
Infosys Limited (INFY)	\$3,189,138	\$10,607	\$11,856	34.8%	\$2,820	\$3,142	26.8%	3.7x	3.8x	3.4x	13.6 x	14.4 x	13.0 x
DXC Technology Company (DXC)	\$26,294	\$22,340	\$21,808	28.9%	\$4,921	\$4,876	22.0%	1.3x	1.4x	1.4x	5.7 x	6.3 x	6.4 x
HCL Technologies Limited (HCLTECH)	\$1,514,785	\$7,739	\$8,904	34.4%	\$1,811	\$2,055	22.9%	2.5x	2.6x	2.3x	10.9 x	11.1 x	9.8 x
CGI Group Inc. (GIB.A)	\$23,228	\$8,948	\$9,201	29.5%	\$1,638	\$1,717	16.8%	2.2x	2.2x	2.1x	12.5 x	11.8 x	11.2 x
Wipro Limited (BSE:507685)	\$1,466,707	\$7,766	\$8,550	29.1%	\$1,480	\$1,617	18.5%	2.2x	2.2x	2.0x	11.6 x	11.8 x	10.8 x
Atos SE (ATO)	\$10,774	\$14,297	\$15,395	14.5%	\$1,994	\$2,381	12.6%	0.9x	0.9x	0.8x	6.6 x	6.4 x	5.4 x
Synthomer plc (SYNT)	\$1,840	\$2,058	\$2,164	18.7%	\$246	\$269	11.3%	1.3x	1.3x	1.2x	11.4 x	10.9 x	10.0 x
Virtusa Corporation (VRTU)	\$1,597	\$1,206	\$1,366	29.1%	\$98	\$134	7.5%	1.7x	1.5x	1.3x	16.0 x	18.4 x	13.5 x
Perficient, Inc. (PRFT)	\$928	\$497	\$527	34.9%	\$75	\$84	11.7%	2.0x	2.0x	1.8x	13.5 x	13.0 x	11.6 x
Mean	\$580,828	\$12,021	\$12,820	29.4%	\$2,301	\$2,496	17.1%	2.1x	2.1x	1.9x	11.6x	12.0x	10.6x
Median	\$26,294	\$8,948	\$9,201	29.5%	\$1,811	\$2,055	17.1%	2.2x	2.2x	2.0x	12.0x	11.8x	10.8x

NA = Not Available; NM = Not Meaningful; LTM = Latest Twelve Months

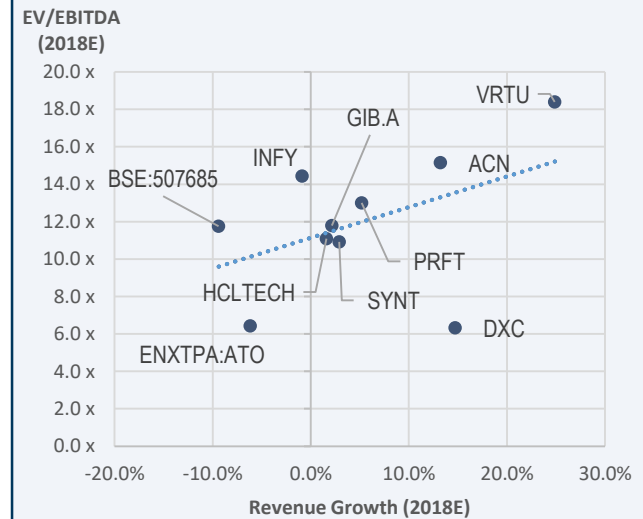
† = excluded from Mean and Median calculations

Source: Public Filings, Press Releases and Published Research Reports

(1) As of close September 28, 2018.

(2) Excludes non-recurring, discontinued operations and stock-based compensation

Relative Valuation

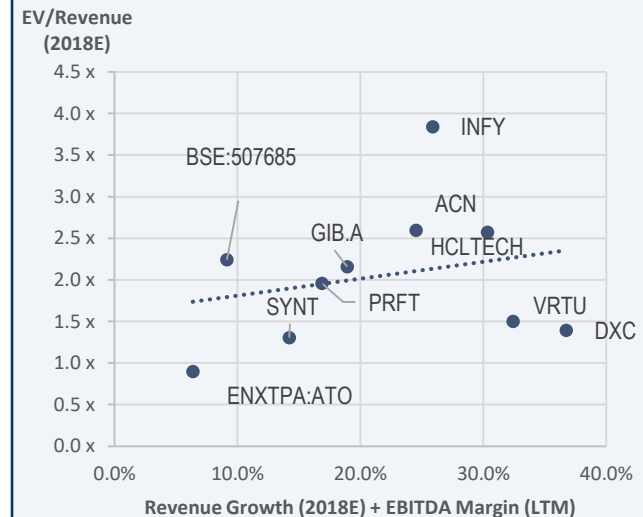


Select September 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
September 26			▪ Delivers Salesforce consulting services
September 20			▪ Provides support cloud adoption services
September 18			▪ Provides automated Q2C business technologies
September 14			▪ Provides salesforce consultancy services
September 05			▪ Provides IT consultancy services

Source: CapitalIQ

*Please contact the MHH Technology Services Group directly for any information regarding valuation and deal size



BUSINESS PROCESS OUTSOURCING

Valuation Metrics

(\$ in millions)

Company	Market Cap ⁽¹⁾	Operating Metrics						Valuation Multiples					
		Revenue		LTM Gross Margin	EBITDA ⁽²⁾		LTM EBITDA Margin	EV / Revenue			EV / EBITDA		
		2018E	2019E		2018E	2019E		LTM	2018E	2019E	LTM	2018E	2019E
Automatic Data Processing, Inc. (ADP)	\$65,905	\$13,735	\$14,565	43.2%	\$3,039	\$3,518	21.9%	4.9x	4.8x	4.5x	21.2 x	21.6 x	18.7 x
EPAM Systems, Inc. (EPAM)	\$7,406	\$1,833	\$2,231	35.6%	\$326	\$404	14.8%	4.2x	3.7x	3.1x	22.9 x	21.0 x	17.0 x
Genpact Limited (G)	\$5,814	\$2,981	\$3,235	37.3%	\$505	\$563	14.5%	2.3x	2.3x	2.1x	14.7 x	13.3 x	11.9 x
WNS (Holdings) Limited (WNS)	\$2,561	\$793	\$866	34.3%	\$144	\$154	15.1%	3.3x	3.2x	2.9x	17.0 x	17.7 x	16.5 x
ExiService Holdings, Inc. (EXLS)	\$2,272	\$887	\$1,006	34.3%	\$150	\$178	14.0%	2.6x	2.4x	2.1x	15.4 x	14.1 x	11.9 x
Globant S.A. (GLOB)	\$2,110	\$517	\$621	37.5%	\$94	\$109	15.2%	4.4x	4.0x	3.3x	24.0 x	22.0 x	18.8 x
Luxoft Holding, Inc. (LXFT)	\$1,588	\$926	\$1,057	37.4%	\$123	\$154	11.1%	1.7x	1.6x	1.4x	11.8 x	12.2 x	9.8 x
Mean	\$12,522	\$3,096	\$3,369	37.1%	\$626	\$726	15.2%	3.3x	3.1x	2.8x	18.1x	17.4x	14.9x
Median	\$2,561	\$926	\$1,057	37.3%	\$150	\$178	14.8%	3.3x	3.2x	2.9x	17.0x	17.7x	16.5x

NA = Not Available; NM = Not Meaningful; LTM = Latest Twelve Months

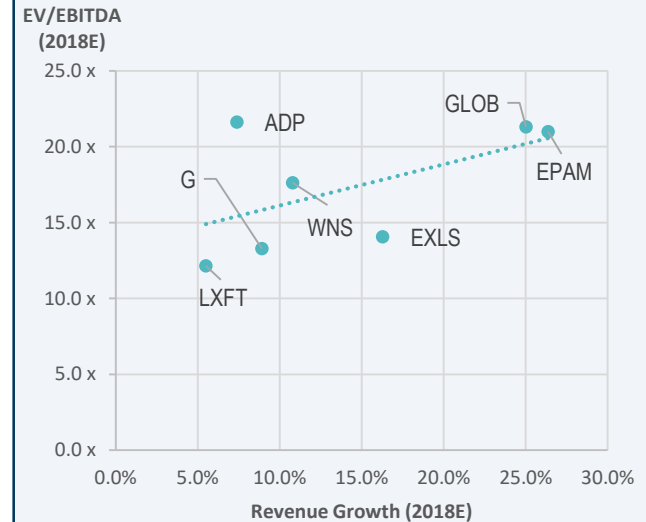
± = excluded from Mean and Median calculations

Source: Public Filings, Press Releases and Published Research Reports

(1) As of close September 28, 2018.

(2) Excludes non-recurring, discontinued operations and stock-based compensation

Relative Valuation

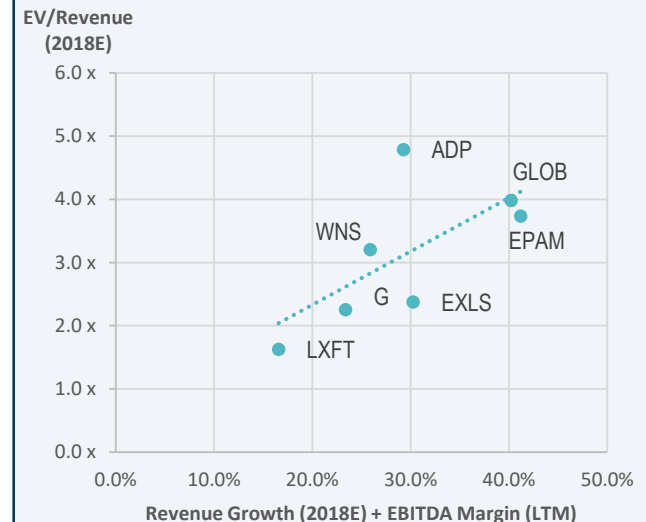


Select September 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
September 25	devoteam	jayway.	▪ Designs and develops custom built software
September 25	j2 Global	C	▪ Provider of digital communications services
September 12	+3 Add3	Point It Digital Marketing	▪ Provider of digital marketing services
September 11	OPENDNA	CHOOSE DIGITAL Make the Switch Today	▪ Provider of digital marketing services
September 04	dog	GLOB	▪ Designs and develops web and mobile solutions

Source: CapitalIQ

*Please contact the MHH Technology Services Group directly for any information regarding valuation and deal size



INFRASTRUCTURE SERVICES

Valuation Metrics

(\$ in millions)

Company	Market Cap ⁽¹⁾	Operating Metrics						Valuation Multiples					
		Revenue		LTM Gross Margin	EBITDA ⁽²⁾		LTM EBITDA Margin	EV / Revenue			EV / EBITDA		
		2018E	2019E		2018E	2019E		LTM	2018E	2019E	LTM	2018E	2019E
Equinix, Inc. (REIT) (EQIX)	\$34,418	\$5,067	\$5,583	48.7%	\$2,405	\$2,714	44.2%	9.3x	8.9x	8.0x	19.3 x	18.6 x	16.5 x
VeriSign, Inc. (VRSN)	\$19,522	\$1,214	\$1,272	84.0%	\$867	\$906	66.0%	16.9x	16.6x	15.8x	24.0 x	23.2 x	22.2 x
GoDaddy Inc. (GDDY)	\$13,832	\$2,651	\$2,974	66.0%	\$733	\$812	15.3%	6.3x	5.9x	5.3x	32.7 x	21.3 x	19.2 x
Zayo Group Holdings, Inc. (ZAYO)	\$8,557	\$2,607	\$2,662	63.8%	\$1,294	\$1,363	45.7%	5.4x	5.4x	5.3x	11.0 x	10.9 x	10.4 x
United Internet AG (UTDI)	\$9,523	\$5,165	\$5,455	35.1%	\$1,374	\$1,512	22.4%	2.5x	2.3x	2.2x	11.0 x	8.7 x	7.9 x
Wix.com Ltd. (WIX)	\$5,787	\$599	\$759	81.3%	\$112	\$178	-6.7%	10.6x	9.1x	7.2x	NM	48.7 x	30.6 x
Endurance International Group Holdings, Inc. (EIGI)	\$1,263	\$1,148	\$1,146	52.7%	\$316	\$318	26.2%	2.6x	2.7x	2.7x	8.7 x	9.7 x	9.6 x
Web.com Group, Inc. (WEB)	\$1,350	\$750	\$766	67.5%	\$186	\$194	18.9%	2.6x	2.6x	2.6x	11.9 x	10.5 x	10.1 x
Interap Corporation (INAP)	\$255	\$323	\$343	55.2%	\$115	\$125	29.6%	3.1x	2.8x	2.6x	9.9 x	7.9 x	7.3 x
Mean	\$10,501	\$2,169	\$2,329	61.6%	\$822	\$903	30.3%	6.6x	6.2x	5.7x	16.1x	17.7x	14.9x
Median	\$8,557	\$1,214	\$1,272	63.8%	\$733	\$812	27.9%	5.4x	5.4x	5.3x	11.4x	10.9x	10.4x

NA = Not Available; NM = Not Meaningful; LTM = Latest Twelve Months

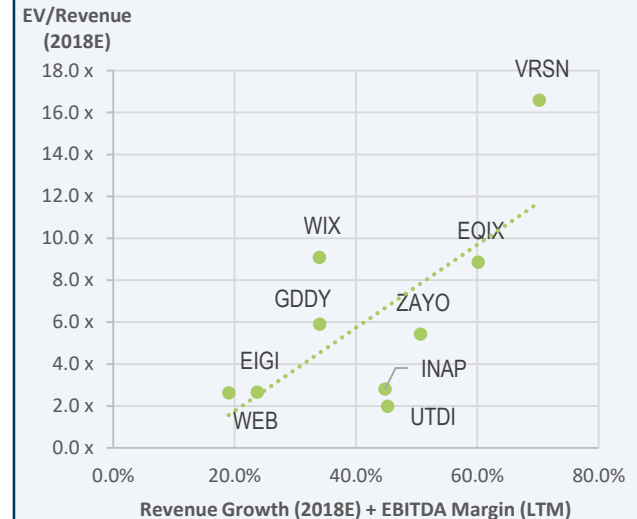
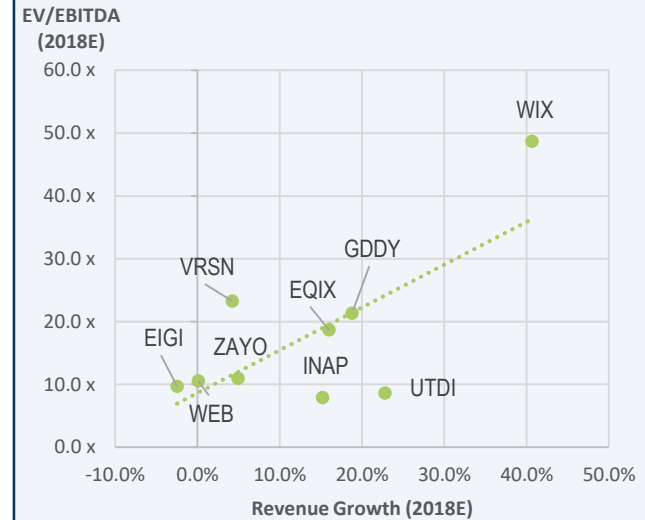
‡ = excluded from Mean and Median calculations

Source: Public Filings, Press Releases and Published Research Reports

(1) As of close September 28, 2018.

(2) Excludes non-recurring, discontinued operations and stock-based compensation

Relative Valuation



Select September 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
September 28	software AG	built.io	▪ Provides Platform-as-a-Service solutions
September 26	Flexera	RIGHT SCALE	▪ Offers cloud portfolio management software
September 20	inspire	allure A CHRISTIE COMPANY	▪ Provides enterprise software solutions
September 10	Accountabil IT	CLEARPointe	▪ Provides IT network management services
September 06	SS&C	INTRA LINKS	▪ Provides software-as-a-service solutions

Source: CapitalIQ

*Please contact the MHH Technology Services Group directly for any information regarding valuation and deal size

INFORMATION SERVICES

Valuation Metrics

(\$ in millions)

Company	Market Cap ⁽¹⁾	Operating Metrics						Valuation Multiples					
		Revenue		LTM Gross Margin	EBITDA ⁽²⁾		LTM EBITDA Margin	EV / Revenue			EV / EBITDA		
		2018E	2019E		2018E	2019E		LTM	2018E	2019E	LTM	2018E	2019E
S&P Global Inc. (SPGI)	\$49,141	\$6,442	\$6,845	72.1%	\$3,171	\$3,410	48.9%	8.3x	8.1x	7.7x	16.5 x	16.5 x	15.4 x
IQVIA Holdings Inc. (Q)	\$26,284	\$10,368	\$11,026	42.6%	\$2,212	\$2,381	21.1%	4.3x	3.5x	3.3x	19.3 x	16.4 x	15.3 x
Moody's Corporation (MCO)	\$32,086	\$4,624	\$4,932	71.4%	\$2,229	\$2,413	47.2%	8.0x	7.8x	7.3x	15.9 x	16.3 x	15.0 x
IHS Markit Ltd. (INFO)	\$21,269	\$4,016	\$4,494	63.3%	\$1,540	\$1,765	32.9%	7.0x	6.8x	6.0x	18.0 x	17.6 x	15.4 x
Verisk Analytics, Inc. (VRSK)	\$19,856	\$2,394	\$2,559	63.0%	\$1,140	\$1,234	45.4%	9.8x	9.4x	8.8x	21.4 x	19.7 x	18.2 x
MSCI Inc. (MSCI)	\$15,760	\$1,440	\$1,564	79.5%	\$788	\$869	53.0%	12.4x	11.8x	10.8x	22.2 x	21.5 x	19.5 x
Gartner, Inc. (IT)	\$14,395	\$3,997	\$4,414	61.8%	\$734	\$826	13.3%	4.4x	4.2x	3.8x	28.9 x	22.7 x	20.2 x
FactSet Research Systems Inc. (FDS)	\$8,581	\$1,371	\$1,462	51.2%	\$464	\$505	31.4%	6.6x	6.5x	6.1x	19.6 x	19.2 x	17.7 x
Mean	\$23,421	\$4,332	\$4,662	63.1%	\$1,535	\$1,675	36.6%	7.6x	7.3x	6.7x	20.2 x	18.8 x	17.1 x
Median	\$20,562	\$4,007	\$4,454	63.2%	\$1,340	\$1,500	39.2%	7.5x	7.3x	6.7x	19.4 x	18.4 x	16.5 x

NA = Not Available; NM = Not Meaningful; LTM = Latest Twelve Months

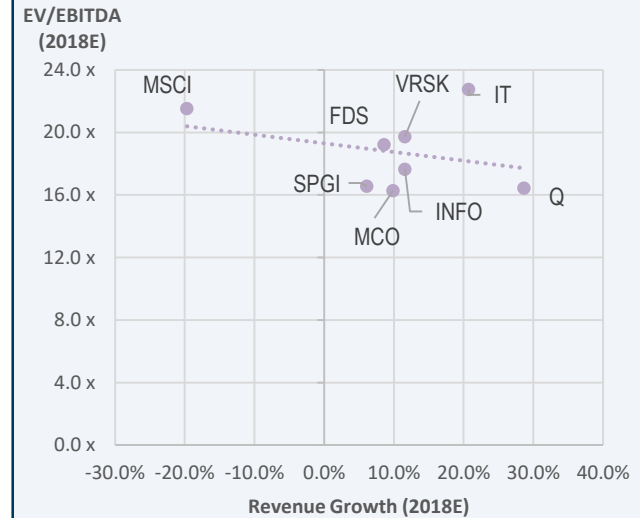
‡ = excluded from Mean and Median calculations

Source: Public Filings, Press Releases and Published Research Reports

(1) As of close September 28, 2018.

(2) Excludes non-recurring, discontinued operations and stock-based compensation

Relative Valuation

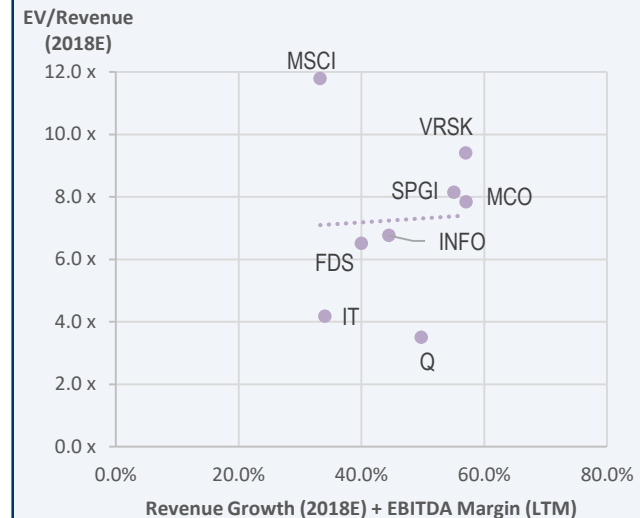


Select September 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
September 25	AlsoEnergy	Locus ENERGY	• Provides monitoring software and data analytics
September 21	BDO	BDO B&PE advisory	• Provides data analysis consulting services
September 14	Nasdaq	Cinnober	• Develops business-critical system solutions
September 10	MarketCast	TURNKEY	• Provides sports consulting and analytics
September 06	ELITE SEM Performance Driven Digital Marketing	cpcstrategy	• Retail search platform that helps teams build the most effective and profitable campaigns

Source: CapitalIQ

*Please contact the MHH Technology Services Group directly for any information regarding valuation and deal size



Valuation Metrics

(\$ in millions)

Company	Market Cap ⁽¹⁾	Operating Metrics						Valuation Multiples					
		Revenue		LTM Gross Margin	EBITDA ⁽²⁾		LTM EBITDA Margin	EV / Revenue			EV / EBITDA		
		2018E	2019E		2018E	2019E		LTM	2018E	2019E	LTM	2018E	2019E
Cerner Corporation (CERN)	\$21,191	\$5,419	\$5,857	84.5%	\$1,604	\$1,764	25.1%	4.0x	3.8x	3.5x	14.9 x	12.9 x	11.8 x
Veeva Systems Inc. (VEEV)	\$15,733	\$843	\$996	69.7%	\$297	\$353	24.2%	19.3x	17.5x	14.8x	NM	49.6 x	41.7 x
athenahealth, Inc. (ATHN)	\$5,411	\$1,349	\$1,484	54.2%	\$377	\$422	18.8%	4.2x	4.0x	3.7x	18.5 x	14.5 x	12.9 x
Allscripts Healthcare Solutions, Inc. (MDRX)	\$2,488	\$2,168	\$2,280	48.7%	\$419	\$461	5.2%	2.2x	2.1x	2.0x	30.1 x	10.7 x	9.7 x
Inovalon Holdings, Inc. (INOV)	\$1,534	\$570	\$647	68.9%	\$169	\$202	16.5%	5.1x	4.2x	3.7x	25.5 x	14.3 x	12.0 x
NextGen Healthcare, Inc. (QSII)	\$1,289	\$538	\$561	54.6%	\$84	\$90	8.1%	2.5x	2.4x	2.3x	23.2 x	15.6 x	14.6 x
National Research Corporation (NRC)	\$955	\$121	\$127	58.8%	NA	NA	31.8%	8.4x	8.2x	7.8x	25.0 x	NM	NM
HealthStream, Inc. (HSTM)	\$1,002	\$229	\$240	57.2%	\$40	\$44	11.4%	3.3x	3.7x	3.5x	27.1 x	20.8 x	19.2 x
Computer Programs and Systems, Inc. (CPSI)	\$365	\$284	\$297	55.1%	\$44	\$51	12.3%	1.8x	1.8x	1.7x	11.5 x	11.4 x	9.9 x
Castlight Health, Inc. (CSLT)	\$372	\$153	\$165	60.5%	(\$13)	\$11	-36.1%	2.1x	2.0x	1.8x	NM	NM	28.5 x
Mean	\$5,034	\$1,168	\$1,265	61.2%	\$336	\$377	11.7%	5.3x	5.0x	4.5x	22.0x	18.7x	17.8x
Median	\$1,412	\$554	\$604	58.0%	\$169	\$202	14.4%	3.7x	3.7x	3.5x	24.1x	14.4x	12.9x

NA = Not Available; NM = Not Meaningful; LTM = Latest Twelve Months

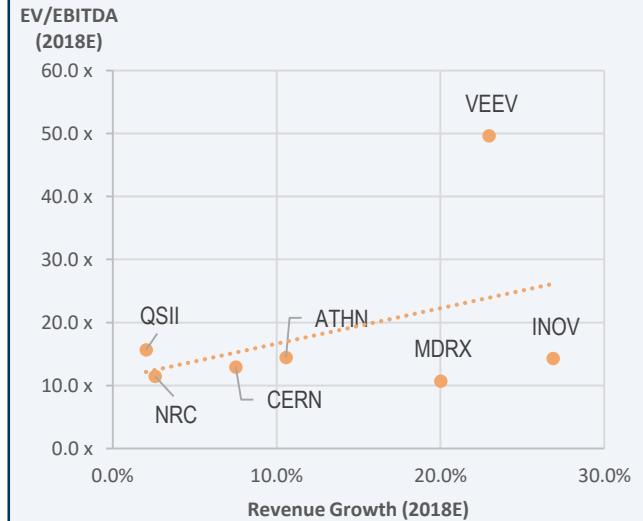
‡ = excluded from Mean and Median calculations

Source: Public Filings, Press Releases and Published Research Reports

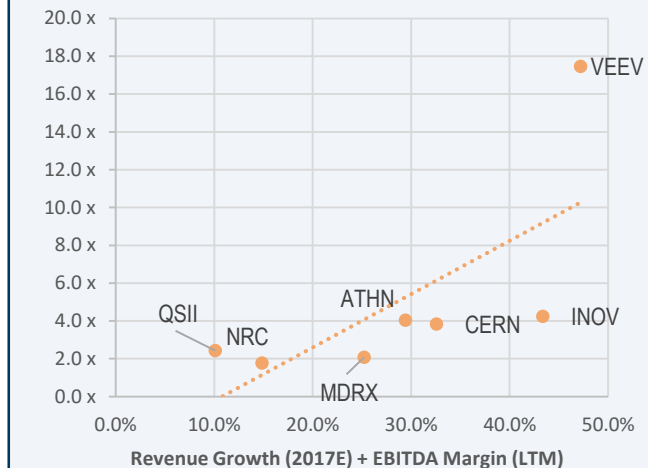
(1) As of close September 28, 2018.

(2) Excludes non-recurring, discontinued operations and stock-based compensation

Relative Valuation**



EV/Revenue (2017E)



Select September 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
September 18	CANCER GENETICS	NovellusDx Path to Cancer Care	Technology platform providing automated gene profiling to assist providers in cancer treatment
September 17	TRIMEDX™	aramark	Provides healthcare technology services
September 17	WAYSTAR	connance Predict • Connect • Transform	Provides predictive analytic technology solutions
September 12	evolent HEALTH	New Century Health	Technology platform for specialty care management
September 11	RevSpring	APEX	Develops document and payment solutions

Source: CapitalIQ

*Please contact the MHH Technology Services Group directly for any information regarding valuation and deal size

**Excluded: CSLT

TECHNOLOGY SERVICES MONTHLY

For more information, please contact:

Brandon Eck
Managing Director,
Head of Technology Services

 215.399.5411  beck@mhhco.com

Andrew Wilson
Vice President,
Technology Services

 215.399.5406  awilson@mhhco.com

Mufson Howe Hunter

INVESTMENT BANKERS FOR GROWTH

The Mufson Howe Hunter Technology Services Indices

IT Outsourcing is currently comprised of: ACN, CTSH, INFY, NESI:HCLTECH, GIB.A, WIT, ENXTPA:ATO, SYNT, VRTU, PRFT; Business Process Outsourcing Index is currently comprised of: ADP, G, EPAM, LXFT, EXLS, WNS, GLOB; Infrastructure Services Index is currently comprised of: EQIX, ZAYO, UTDI, VRSN, DFT, GDDY, EIGI, WIX, WEB, INAP; Information Services Index is currently comprised of: SPGI, Q, MCO, INFO, VRSK, IT, MSCI, FDS; and, Healthcare IT is currently comprised of: CERN, VEEV, ATHN, MDRX, WBMD, INOV, QSII, HSTM, NRCI.B, CPSI, CSLT.

The companies that comprise each Index periodically change as a result of mergers, acquisitions, initial public offerings and other transactions; therefore, comparisons to historical time periods and historical performance for each Index may not entirely correspond and correlate to the Index's current performance. Historical performance is not a guarantee or prediction of future results. The information and statistical data contained herein have been obtained from sources that Mufson Howe Hunter believes are reliable, but Mufson Howe Hunter makes no representation or warranty as to the accuracy or completeness of any such information and data and expressly disclaims any and all liability relating to or resulting from your use of these materials. The information and data contained herein are current only as of the date(s) indicated and Mufson Howe Hunter has no intention, obligation or duty to update these materials after such date(s). These materials do not constitute an offer to sell or the solicitation of an offer to buy any securities.

Copyright © January 2018 Mufson Howe Hunter & Company LLC. All rights reserved. Technology Services Monthly is produced monthly by Mufson Howe Hunter. Mufson Howe Hunter provides a full range of investment banking services to Technology Services companies. For more information, visit www.mhhco.com.
Icons by Flaticon.