



Mufson Howe Hunter

INVESTMENT BANKERS FOR GROWTH

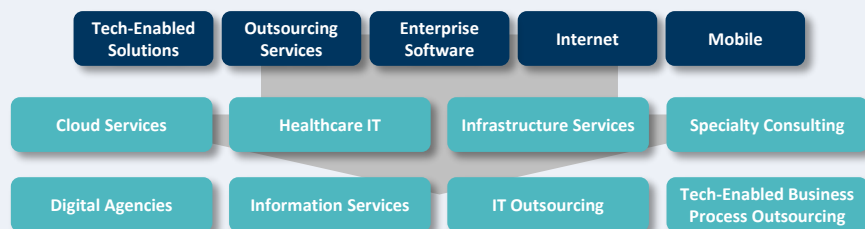
TECHNOLOGY SERVICES MONTHLY

Expanding Opportunities in the ServiceNow Ecosystem

November 2018

Welcome to the MHH Technology Services Newsletter!

Welcome to the November edition of the Mufson Howe Hunter Technology Services Monthly. As a follow up to last month's piece on Salesforce channel partners, this month we highlight the expanding opportunities within the ServiceNow 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...



- [ServiceNow opens Hyderabad R&D centre](#)
- [Epic, Cerner and others moving into expanding global EHR market, says KLAS](#)
- [The battle of the health clouds](#)
- [Making sense of IBM-Red Hat in the multi-cloud era](#)

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

Expanding Opportunities in the ServiceNow Ecosystem

ServiceNow (“NOW”) is poised to continue its meteoric growth and increasing importance across enterprise SaaS.

NOW is the only SaaS enterprise application company with >\$2 billion in revenue and on track to grow subscription revenue more than 30% in 2019.¹ In fact, Jefferies expects NOW to achieve \$4 billion in revenue and a market capitalization of over \$45 billion within the next 18-24 months.² NOW has plenty of runway for sustained growth, having previously sized its Total Addressable Market (TAM) at \$60 billion, implying current penetration of about 4%.³

NOW has demonstrated the ability to successfully expand existing customer spend. In fact, **80% of net new Annual Contract Value (ACV) in 2017 came from existing customers**,⁴ and NOW has only penetrated a fraction of the potential spending within existing clients. **MHH believes that Systems Integration (SI) channel partners will play a critical role in NOW’s enterprise-wide expansion within existing accounts.**

“During [the Knowledge18 summit], I noticed some new changes to the way ServiceNow is engaging its partners. Clearly, they are taking their ecosystem seriously and showed it by dedicating an entire day for partner enablement.”

-- VP of Business Development, ScienceLogic

Demand for ServiceNow SI channel partners is greater than ever and will accelerate going forward.

Whereas NOW’s core, IT-centric product offering requires less customization than competitive platforms like Salesforce and Workday, **MHH believes that NOW’s expansion beyond IT Service Management (ITSM) presents a vastly enlarged opportunity for channel partners and third-party application developers, as these products will require substantial customization and user interfaces tailored for non-IT personnel.**

NOW’s recent revenue growth has been largely fueled by new products, with non-IT products accounting for 34% of new ACV in 2017.⁵ This revenue diversification is reflected in the ServiceNow app store, which has quadrupled the number of applications listed since its inception in 2015.⁶ Table 1 (top right) reflects the diversity of NOW-based applications across functional areas. Table 2 (bottom right) reflects the acceleration of NOW’s non-ITSM revenue growth. In fact, **in 2017 NOW derived 30% of its new revenue from functional areas in which software was not previously used.**⁷ This means less competition for NOW in those areas, and it presents a **tremendous greenfield opportunity for NOW channel partners.**

Although initially slower than its peers to embrace channel partners and third-party developers – waiting, for example, until 2015 to open an app store – **NOW has clearly begun to embrace (and invest in) its ecosystem, particularly since ramping up its non-ITSM offerings.**

Table 1: Distribution of ServiceNow-based Applications by Focus⁸

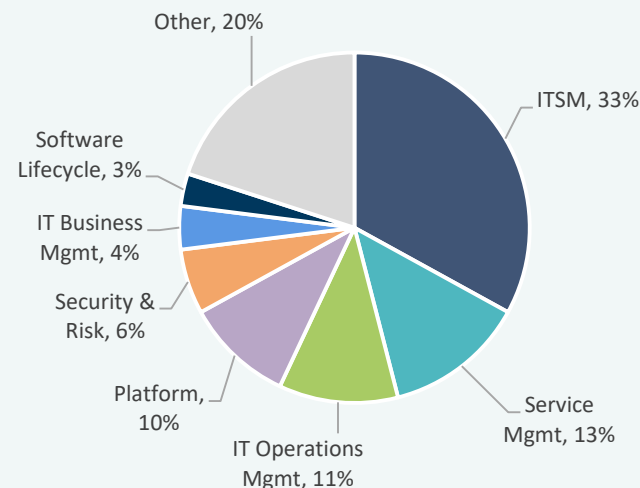
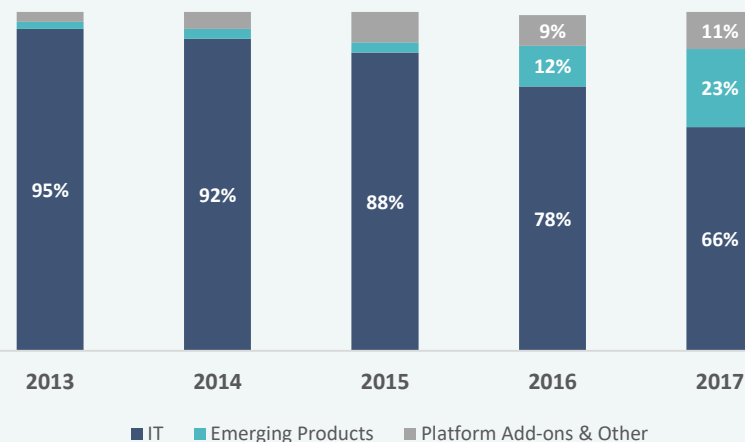


Table 2: New ACV Mix by Product, 2013 - 2017⁹



Expanding Opportunities in the ServiceNow Ecosystem

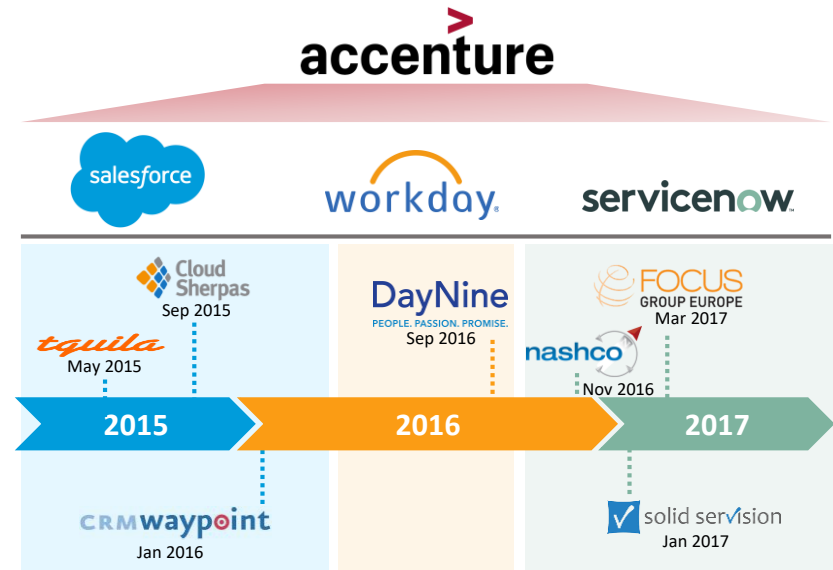
The growing importance of the ServiceNow ecosystem is reflected in investment and M&A activity. The maturation of the NOW ecosystem is evident in the recent acquisitions of several of the largest ServiceNow partners. Accenture, for example, has recently acquired Cloud Sherpas, Nashco, Focus Group and Solid Servision.¹ CSC has acquired Fruition Partners, UXC Keystone and Aspediens.²

Fruition Partners ("FP") demonstrated the potential for tremendous value creation through an investment-driven M&A/roll-up strategy. In December 2012, FP raised a \$12 million Series A round led by Trident Capital, putting the company's pre-money valuation at \$25 million, or roughly 1.0x TTM revenue.³ FP raised another \$5.5 million in June of 2014 and subsequently acquired two companies – *Partners in IT* and *Manta*. In September 2015, FP was acquired by CSC for \$148 million, or roughly 2.5x TTM revenue.⁴

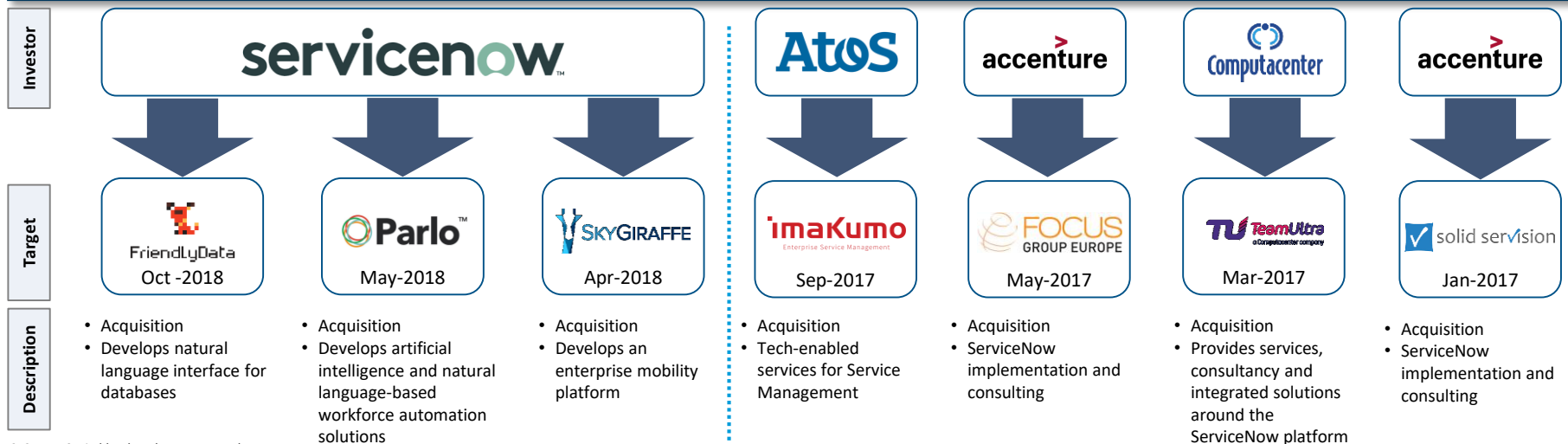
ServiceNow is actively investing in, incubating and acquiring companies across the NOW ecosystem. In a similar fashion to Salesforce Ventures, NOW established ServiceNow Ventures to invest in companies across the NOW ecosystem, and NOW itself has acquired several companies that expand their core functionality.



Accenture has been an active acquirer of cloud service providers and recent M&A activity has suggested a heightened focus on developing/acquiring robust NOW-related SI capabilities.⁵



Recent Relevant ServiceNow & ServiceNow Partner Investments



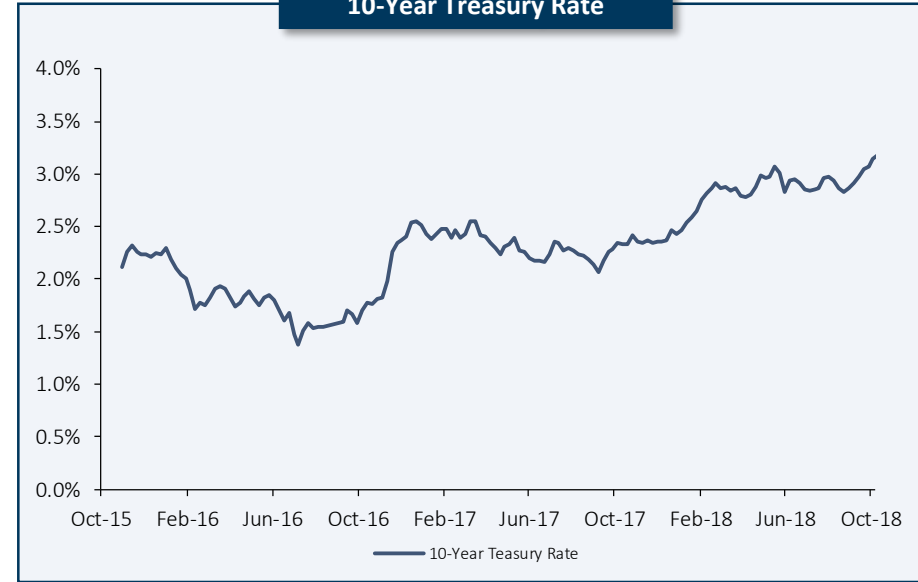
1, 2, 3, 4, 5, 6 Pitchbook and MHH Research

U.S. ECONOMIC INDICATORS

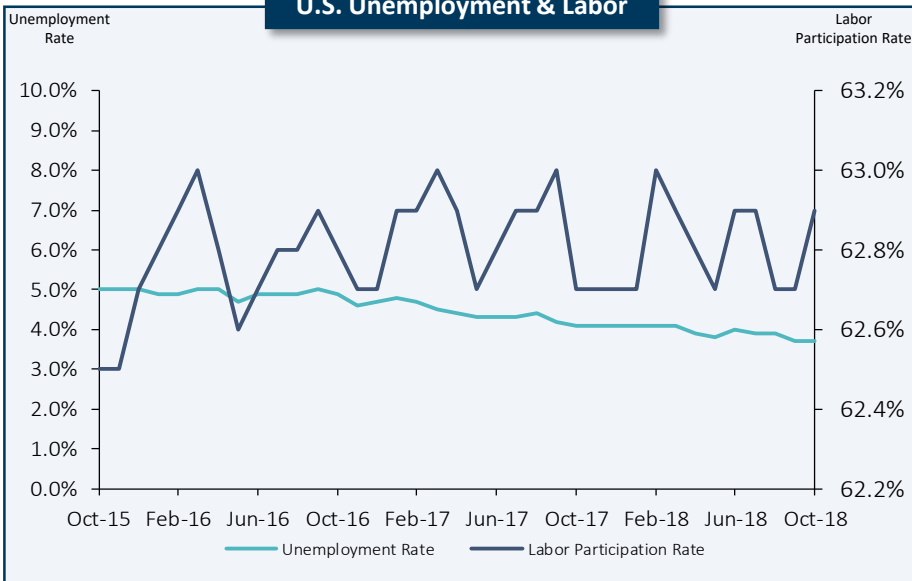
U.S. Market Indices



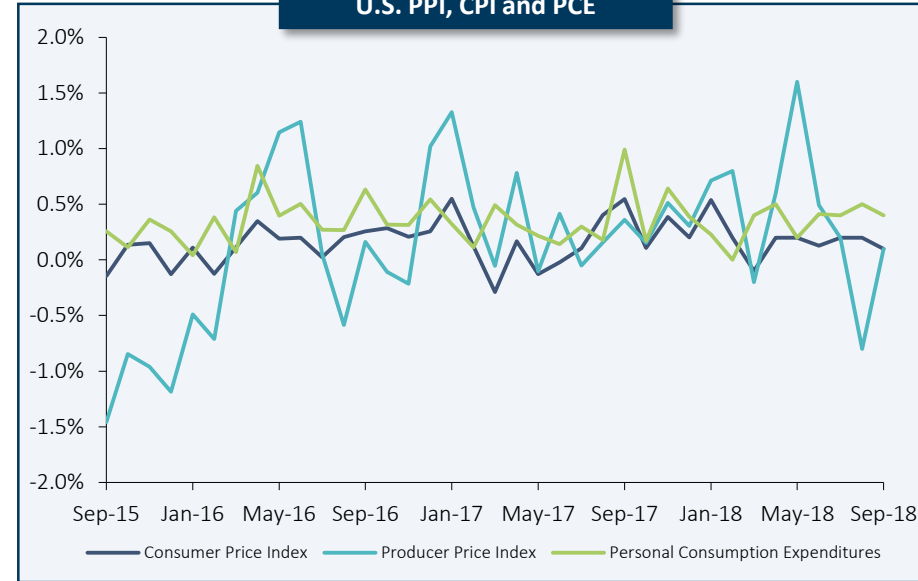
10-Year Treasury Rate



U.S. Unemployment & Labor



U.S. PPI, CPI and PCE



Sources: CapitalIQ, Federal Reserve Bank of St. Louis

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

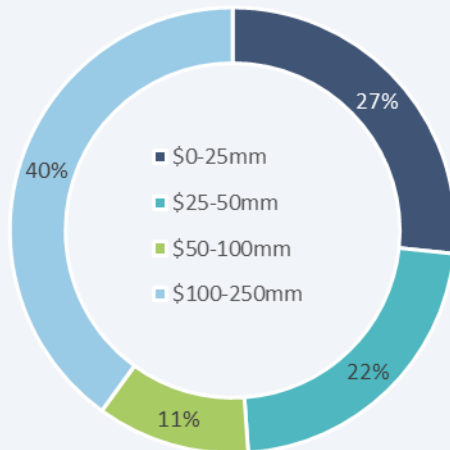
Select October 2018 Buy-Outs**

Company	Investor	Date	Sector
TrackMaven	rho	Oct 23	Infrastructure Services
TDO®	CVF	Oct 18	Healthcare IT
X-IO™	Alpine Global	Oct 16	Infrastructure Services
applied logic	Censis	Oct 16	Healthcare IT
Meriplex	CLAIRVEST	Oct 3	IT Outsourcing
evolver	A K O Y A	Oct 1	IT Outsourcing

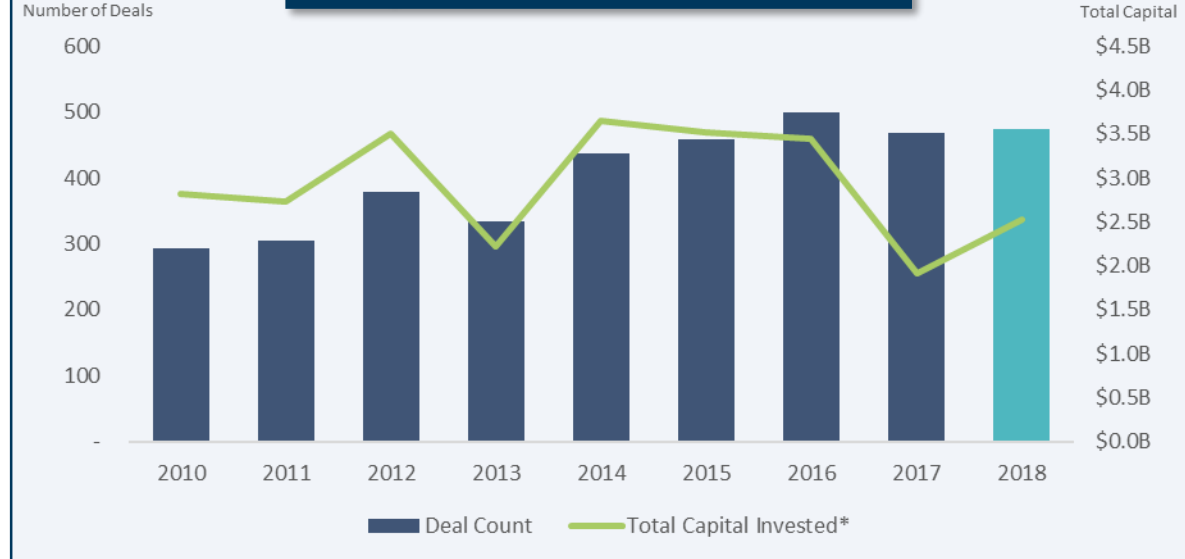
PE Buy-Outs, Trailing 8 Quarters, as of October 31



PE Buy-Outs, by Deal Size



PE Buy-Outs, Historical Annual, as of October 31








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

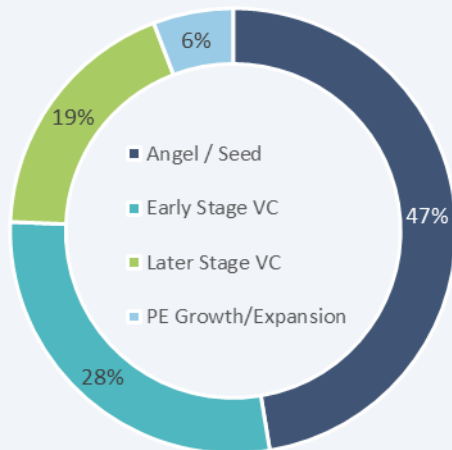
Select October 2018 Minority Deals**

Company	Stage	Date	Sector
 Clear Labs	Early Stage VC	Oct 30	Healthcare IT
 Infoworks	Later Stage VC	Oct 25	IT Outsourcing
 comprehend	Later Stage VC	Oct 17	Healthcare IT
 KYRUS	Early Stage VC	Oct 11	Healthcare IT
 intigua	Later Stage VC	Oct 3	Business Process Outsourcing

PE Minority, Trailing 8 Quarters, as of October 31



PE Minority, by Stage



PE Minority, Historical Annual, as of October 31



Source: Pitchbook

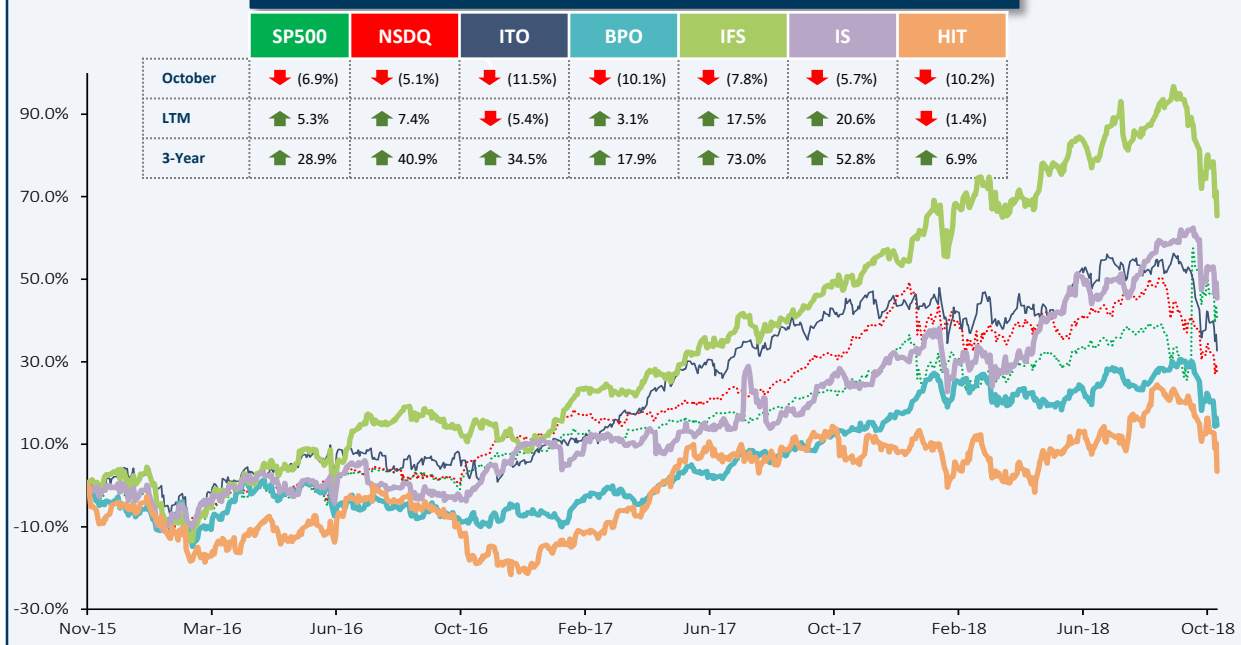
*For deals with announced transaction value

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

VALUATION & PERFORMANCE METRICS

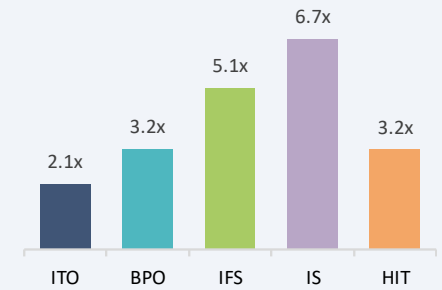
ITO	IT Outsourcing: technology services and consulting solutions, including engineering, application development, knowledge management and business process management
BPO	Business Process Outsourcing: services for administering and managing select technology-enabled business processes, including outsourced 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 October 31, 2018

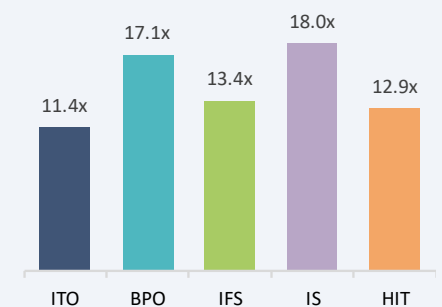


Median Valuation Metrics

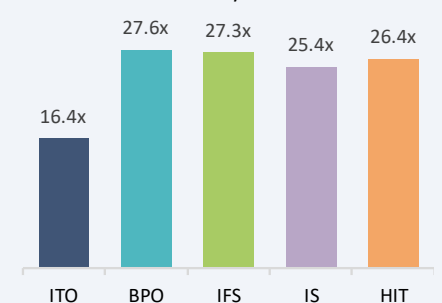
EV/2018E REVENUE



EV/2018E EBITDA

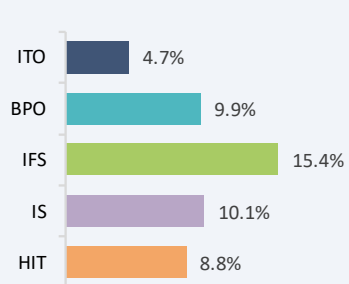


FWD PRICE/EARNINGS

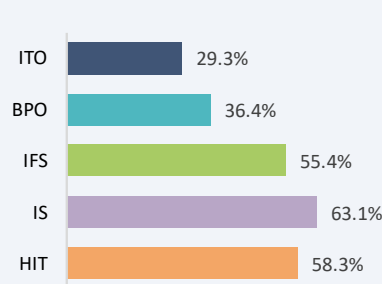


Median Operational KPIs

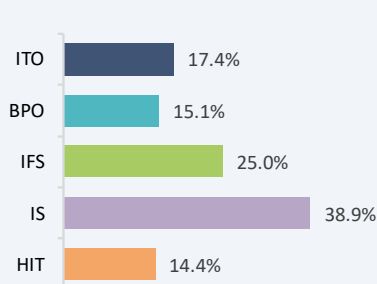
2018E REVENUE GROWTH



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			LTM	2018E	2019E
		2018E	2019E		2018E	2019E		2018E	2019E	2019E	2018E	2018E	2019E			
Infosys Limited (INFY)	\$2,984,101	\$10,952	\$12,454	34.7%	\$2,869	\$3,189	26.5%	3.3x	3.4x	3.0x	12.2 x	12.9 x	11.6 x			
HCL Technologies Limited (NSEI:HCLTECH)	\$1,469,946	\$8,038	\$9,139	34.8%	\$1,859	\$2,132	23.2%	2.4x	2.4x	2.1x	10.3 x	10.5 x	9.2 x			
Wipro Limited (BSE:507685)	\$1,492,370	\$7,976	\$8,789	29.3%	\$1,486	\$1,713	17.4%	2.2x	2.2x	2.0x	12.7 x	11.6 x	10.1 x			
Accenture plc (ACN)	\$100,615	\$40,601	\$43,698	31.4%	\$6,892	\$7,337	16.3%	2.4x	2.4x	2.2x	12.9 x	13.9 x	13.1 x			
FALSE	\$39,970	\$16,112	\$17,412	39.0%	\$3,326	\$3,811	20.9%	2.3x	2.2x	2.1x	10.1 x	10.8 x	9.4 x			
DXC Technology Company (DXC)	\$20,477	\$21,753	\$20,947	29.0%	\$4,897	\$4,743	22.4%	1.0x	1.2x	1.2x	4.6 x	5.2 x	5.3 x			
CGI Group Inc. (GIB.A)	\$22,659	\$8,872	\$9,171	14.8%	\$1,633	\$1,719	18.2%	2.1x	2.1x	2.0x	11.4 x	11.4 x	10.8 x			
Atos SE (ATO)	\$7,965	\$14,138	\$15,519	14.5%	\$1,911	\$2,309	12.6%	0.6x	0.7x	0.6x	4.8 x	4.9 x	4.0 x			
Synthomer plc (SYNT)	\$1,509	\$2,091	\$2,200	18.7%	\$245	\$267	11.3%	1.1x	1.1x	1.0x	9.4 x	9.0 x	8.3 x			
Virtusa Corporation (VRTU)	\$1,475	\$1,205	\$1,366	29.1%	\$98	\$134	7.5%	1.5x	1.4x	1.2x	14.9 x	17.2 x	12.6 x			
Perficient, Inc. (PRFT)	\$871	\$495	\$524	35.3%	\$75	\$84	11.7%	1.9x	1.9x	1.7x	12.6 x	12.2 x	10.9 x			
Mean	\$558,360	\$12,021	\$12,838	28.2%	\$2,299	\$2,495	17.1%	1.9x	1.9x	1.7x	10.5x	10.9x	9.6x			
Median	\$22,659	\$8,872	\$9,171	29.3%	\$1,859	\$2,132	17.4%	2.1x	2.1x	2.0x	11.4x	11.4x	10.1x			

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 October 31, 2018.

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

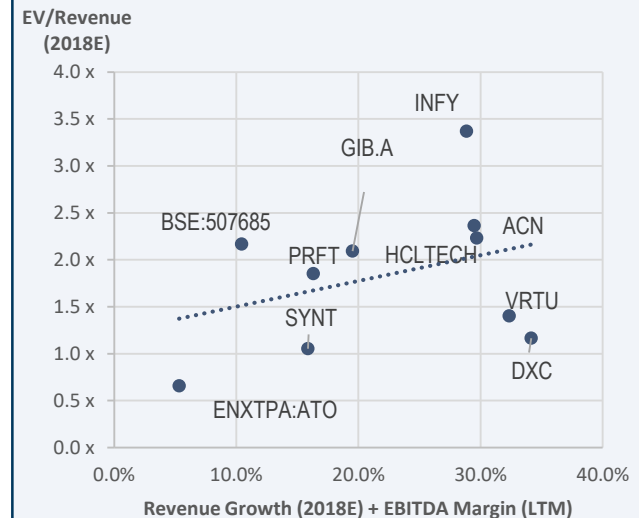
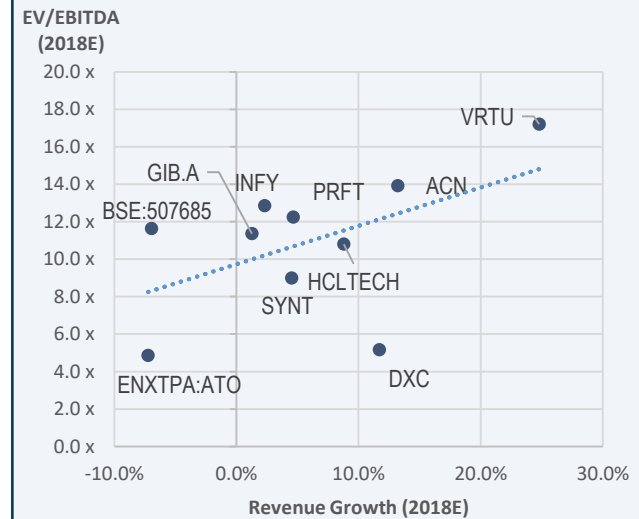
Select October 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
October 30			Provides IT consulting and support services
October 29			Provides strategy, implementation and professional services to Salesforce platform
October 29			Provides IT and management consulting services
October 26			Provides IT consulting and development services
October 1			Provides IT consulting and cloud/managed services

Source: CapitalIQ

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

Relative Valuation



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)	\$63,107	\$13,765	\$14,583	43.7%	\$3,059	\$3,595	22.5%	4.7x	4.7x	4.4x	19.8 x	20.9 x	17.8 x
Genpact Limited (G)	\$5,207	\$2,977	\$3,279	36.4%	\$487	\$549	14.2%	2.1x	2.1x	1.9x	13.3 x	12.5 x	11.1 x
EPAM Systems, Inc. (EPAM)	\$6,425	\$1,835	\$2,241	35.4%	\$337	\$412	15.1%	3.4x	3.2x	2.6x	18.3 x	17.4 x	14.2 x
WNS (Holdings) Limited (WNS)	\$2,533	\$785	\$847	34.9%	\$148	\$155	16.1%	3.2x	3.2x	3.0x	16.1 x	17.1 x	16.3 x
ExlService Holdings, Inc. (EXLS)	\$2,205	\$882	\$999	33.9%	\$150	\$177	13.9%	2.4x	2.3x	2.0x	14.5 x	13.6 x	11.5 x
Globant S.A. (GLOB)	\$1,841	\$517	\$622	37.5%	\$95	\$112	15.2%	3.8x	3.5x	2.9x	20.9 x	18.8 x	16.0 x
Luxoft Holding, Inc. (LXFT)	\$1,383	\$925	\$1,058	37.4%	\$123	\$154	11.1%	1.4x	1.4x	1.2x	10.2 x	10.6 x	8.5 x
Mean	\$11,814	\$3,098	\$3,375	37.0%	\$628	\$736	15.4%	3.0x	2.9x	2.6x	16.1x	15.9x	13.6x
Median	\$2,533	\$925	\$1,058	36.4%	\$150	\$177	15.1%	3.2x	3.2x	2.6x	16.1x	17.1x	14.2x

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

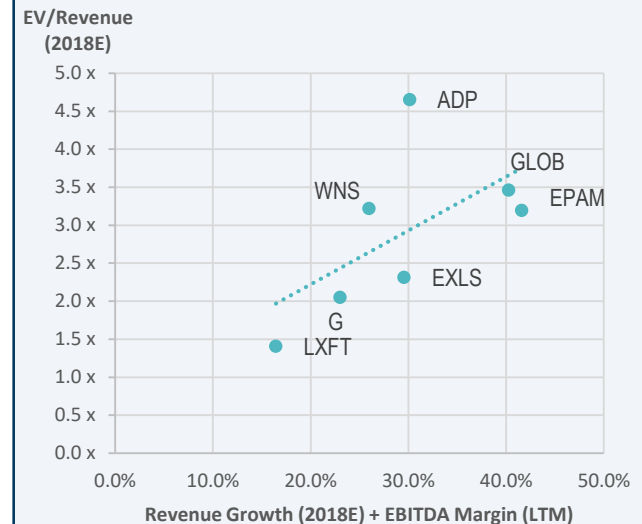
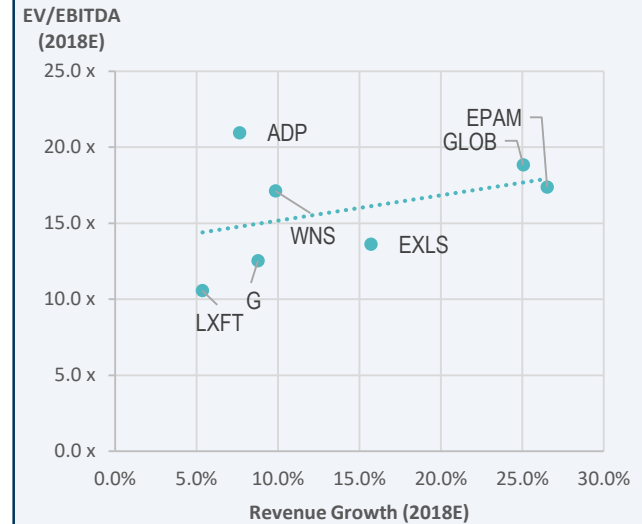
‡ = excluded from Mean and Median calculations

Source: Public Filings, Press Releases and Published Research Reports

(1) As of close October 31, 2018.

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

Relative Valuation



Select October 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
October 31		LSC COMMUNICATIONS	▪ Provides digital printing services
October 19		2ndoffice.com	▪ Provides e-commerce back office operations
October 19		JetPay	▪ Provides financial transactions support for internet, mobile and cloud-based payments
October 4		intelenet	▪ Provides technical supports, e-services, email and live chat services

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)	\$30,113	\$5,069	\$5,580	49.1%	\$2,411	\$2,702	44.9%	8.1x	8.0x	7.3x	16.6 x	16.8 x	15.0 x
VeriSign, Inc. (VRSN)	\$17,231	\$1,215	\$1,271	84.1%	\$871	\$909	66.4%	14.8x	14.7x	14.0x	20.9 x	20.5 x	19.6 x
GoDaddy Inc. (GDDY)	\$12,136	\$2,658	\$2,983	66.3%	\$687	\$771	15.2%	5.4x	5.2x	4.7x	27.8 x	20.3 x	18.1 x
Zayo Group Holdings, Inc. (ZAYO)	\$7,365	\$2,591	\$2,621	64.1%	\$1,285	\$1,310	46.2%	5.0x	5.0x	4.9x	10.0 x	10.1 x	9.9 x
United Internet AG (UTDI)	\$7,397	\$5,159	\$5,438	35.1%	\$1,193	\$1,310	22.4%	2.0x	1.8x	1.7x	8.7 x	7.9 x	7.2 x
Wix.com Ltd. (WIX)	\$4,707	\$599	\$759	81.3%	\$111	\$178	-6.7%	8.5x	7.3x	5.7x	NM	39.4 x	24.5 x
Endurance International Group Holdings, Inc. (EIGI)	\$1,414	\$1,146	\$1,142	53.6%	\$328	\$318	27.6%	2.7x	2.8x	2.8x	8.9 x	9.6 x	9.9 x
Internap Corporation (INAP)	\$209	\$322	\$342	55.4%	\$113	\$123	30.0%	2.8x	2.7x	2.5x	8.8 x	7.6 x	7.0 x
Mean	\$10,072	\$2,345	\$2,517	61.1%	\$875	\$953	NA	6.2x	5.9x	5.5x	14.5x	16.5x	13.9x
Median	\$7,381	\$1,903	\$1,946	59.7%	\$779	\$840	NA	5.2x	5.1x	4.8x	10.0x	13.4x	12.5x

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

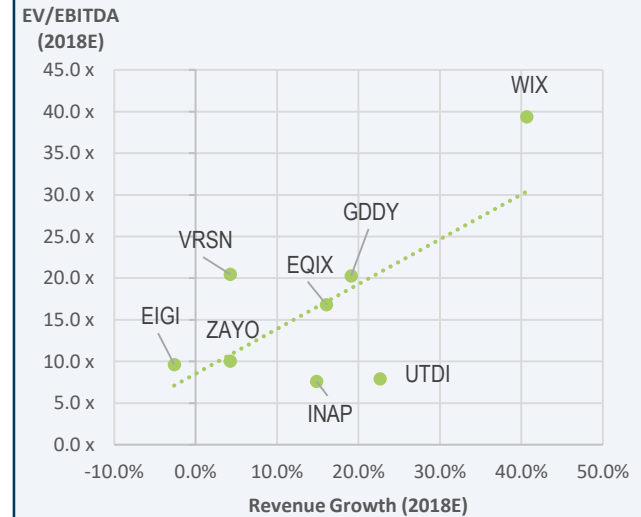
‡ = excluded from Mean and Median calculations

Source: Public Filings, Press Releases and Published Research Reports

(1) As of close October 31, 2018.

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

Relative Valuation

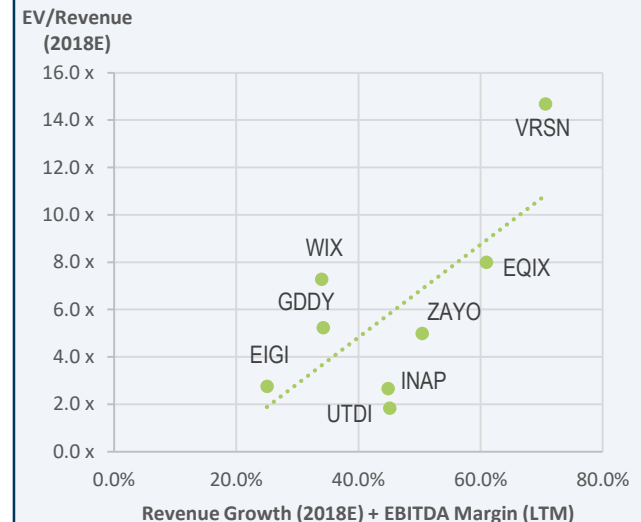


Select October 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
October 29			Provides geographic information system and mapping solutions
October 15			Provide cloud-based communication platform
October 10			Develops natural language interface for databases
October 1			Develops cloud-to-cloud backup and recovery solutions
October 1			Operates data centers and recovery site

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)	\$45,744	\$6,366	\$6,711	72.4%	\$3,148	\$3,347	49.9%	7.7x	7.7x	7.3x	15.0 x	15.5 x	14.6 x
IQVIA Holdings Inc. (Q)	\$24,870	\$10,366	\$10,915	42.7%	\$2,203	\$2,414	21.1%	4.1x	3.4x	3.2x	18.2 x	15.8 x	14.4 x
Moody's Corporation (MCO)	\$26,449	\$4,553	\$4,793	71.7%	\$2,176	\$2,310	47.3%	6.7x	6.7x	6.4x	13.3 x	14.0 x	13.2 x
IHS Markit Ltd. (INFO)	\$20,705	\$4,016	\$4,492	63.3%	\$1,539	\$1,758	32.9%	6.8x	6.6x	5.9x	17.6 x	17.3 x	15.1 x
Verisk Analytics, Inc. (VRSK)	\$19,728	\$2,395	\$2,559	63.0%	\$1,132	\$1,225	44.9%	9.4x	9.3x	8.7x	20.9 x	19.6 x	18.1 x
Gartner, Inc. (IT)	\$13,397	\$3,953	\$4,338	62.6%	\$712	\$796	14.6%	4.0x	4.0x	3.6x	24.6 x	22.0 x	19.7 x
MSCI Inc. (MSCI)	\$13,359	\$1,435	\$1,547	79.9%	\$781	\$852	53.4%	10.4x	10.2x	9.4x	18.5 x	18.6 x	17.1 x
FactSet Research Systems Inc. (FDS)	\$8,511	\$1,371	\$1,462	51.8%	\$464	\$505	32.4%	6.6x	6.5x	6.1x	18.9 x	19.1 x	17.5 x
Mean	\$21,596	\$4,307	\$4,602	63.4%	\$1,519	\$1,651	37.1%	7.0x	6.8x	6.3x	18.4x	17.7x	16.2x
Median	\$20,217	\$3,984	\$4,415	63.1%	\$1,336	\$1,492	38.9%	6.8x	6.7x	6.2x	18.3x	18.0x	16.1x

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

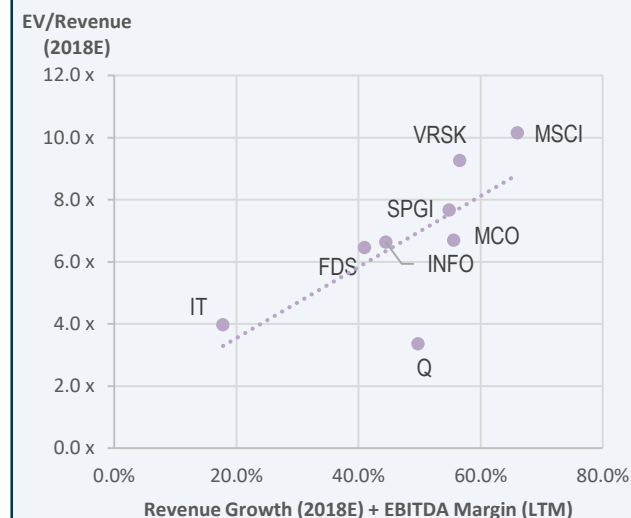
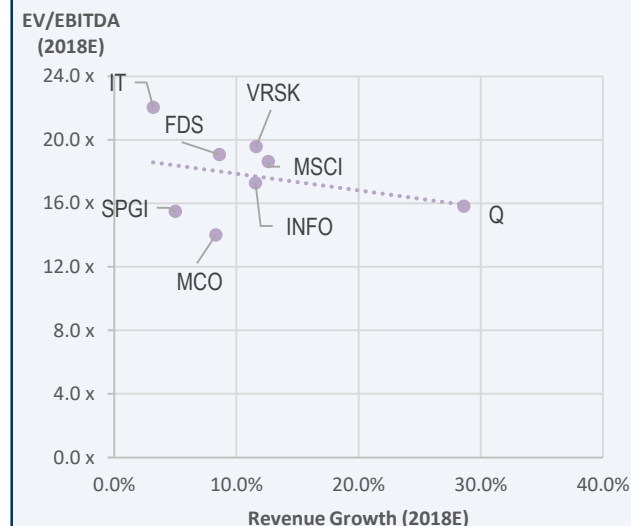
‡ = excluded from Mean and Median calculations

Source: Public Filings, Press Releases and Published Research Reports

(1) As of close October 31, 2018.

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

Relative Valuation



Select October 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
October 31	eurofins	EnviroX	• Provides laboratory testing services
October 29	SilverSEAL Global Security & Investigative Services	MIRACORP	• Provides risk management consulting services
October 18	argus	integer	• Provides market analysis and consulting services
October 3	Location Services Locate. Recover. Transport.	Financial Solutions @ Capital	• Provides risk management and loss mitigation
October 1	ARMOR INCORPORATED	KINETICS THE PROCESS PEOPLE	• Provides technical solutions and modelling/research services

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)	\$18,873	\$5,394	\$5,807	84.1%	\$1,572	\$1,712	24.1%	3.5x	3.4x	3.2x	13.6 x	11.8 x	10.8 x
Veeva Systems Inc. (VEEV)	\$13,201	\$843	\$997	69.7%	\$297	\$357	24.2%	16.0x	14.5x	12.2x	48.6 x	41.0 x	34.2 x
athenahealth, Inc. (ATHN)	\$5,166	\$1,349	\$1,484	54.2%	\$374	\$422	18.8%	4.0x	3.9x	3.5x	17.7 x	13.9 x	12.4 x
Allscripts Healthcare Solutions, Inc. (MDRX)	\$2,080	\$2,152	\$2,255	48.1%	\$414	\$457	4.4%	2.0x	1.9x	1.8x	30.1 x	9.8 x	8.9 x
Inovalon Holdings, Inc. (INOV)	\$1,437	\$538	\$640	71.1%	\$160	\$202	16.8%	4.6x	4.3x	3.6x	22.7 x	14.5 x	11.5 x
National Research Corporation (NRC)	\$941	\$121	\$127	59.6%	NA	NA	33.4%	8.2x	8.1x	7.7x	23.4 x	NM	NM
NextGen Healthcare, Inc. (QSII)	\$955	\$530	\$549	54.3%	\$86	\$86	7.1%	1.8x	1.8x	1.8x	18.6 x	11.2 x	11.2 x
HealthStream, Inc. (HSTM)	\$850	\$230	\$238	57.0%	\$41	\$43	11.9%	2.6x	2.9x	2.8x	20.6 x	16.5 x	15.8 x
Computer Programs and Systems, Inc. (CPSI)	\$340	\$283	\$292	55.3%	\$45	\$51	12.1%	1.7x	1.7x	1.6x	10.9 x	10.7 x	9.3 x
Castlight Health, Inc. (CSLT)	\$340	\$155	\$162	60.7%	(\$8)	\$10	-30.8%	1.8x	1.8x	1.7x	NM	NM	27.6 x
Mean	\$4,418	\$1,159	\$1,255	61.4%	\$331	\$371	12.2%	4.6x	4.4x	4.0x	22.9x	16.2x	15.7x
Median	\$1,196	\$534	\$595	58.3%	\$160	\$202	14.4%	3.1x	3.2x	3.0x	20.6x	12.9x	11.5x

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

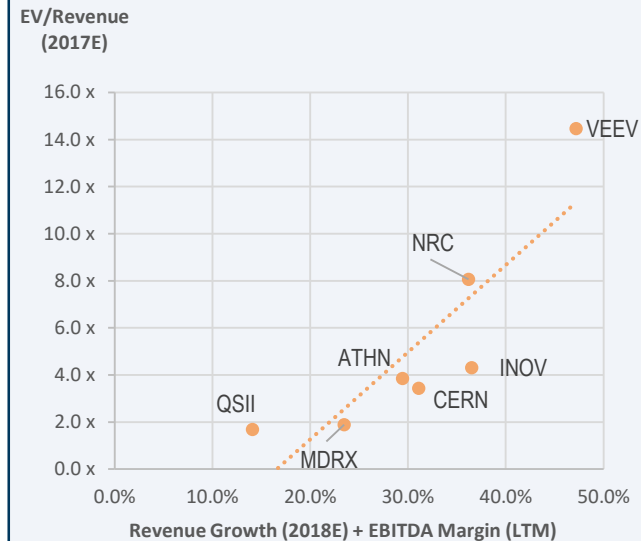
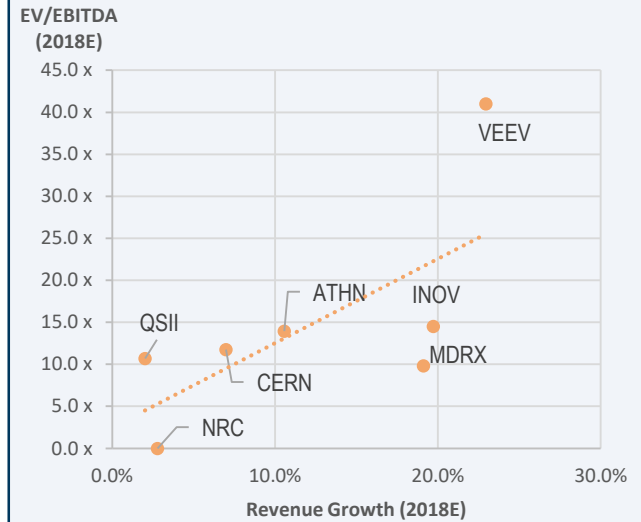
‡ = excluded from Mean and Median calculations

Source: Public Filings, Press Releases and Published Research Reports

(1) As of close October 31, 2018.

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

Relative Valuation**



Select October 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
October 31	CONDUENT	HSP HEALTH SOLUTIONS PLUS	Provides medical claim processing software
October 31	progentec Diagnostics	lupus	Provides health management community online
October 24	MingleHealth	SILVERVUE	Provides patient monitoring apps care-providers
October 17	ORACLE	goBalto	Develops cloud-based solutions for clinical trials
October 10	TransUnion	rubixis	Provides healthcare revenue cycle software

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, CTSI, 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.