



Mufson Howe Hunter

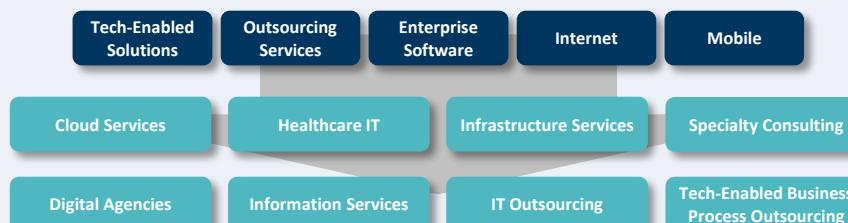
INVESTMENT BANKERS FOR GROWTH

*TECHNOLOGY SERVICES MONTHLY
FINANCIAL SERVICES BPO*

March 2018

Welcome to the MHH Technology Services Newsletter!

Welcome to the March edition of the Mufson Howe Hunter Technology Services Monthly. This month, we highlight key themes and growth drivers within the Financial Services BPO space. 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...



- [Silicon Valley Warms to Trump After a Chilly Start](#)
- [Microsoft Reorganizes to Fuel Cloud and A.I. Businesses](#)
- [Augusta 2030: What could Augusta look like a decade from now?](#)
- [How blockchain can revolutionise the equity market](#)
- [Tesla Says Autopilot Was Engaged in Fatal Crash](#)

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

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Prior Experience:

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

Education:

- Gettysburg College (BA)

18+ Years of
Experience

60+ Transactions
Completed



Andrew Wilson
Vice President,
Technology Services

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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)

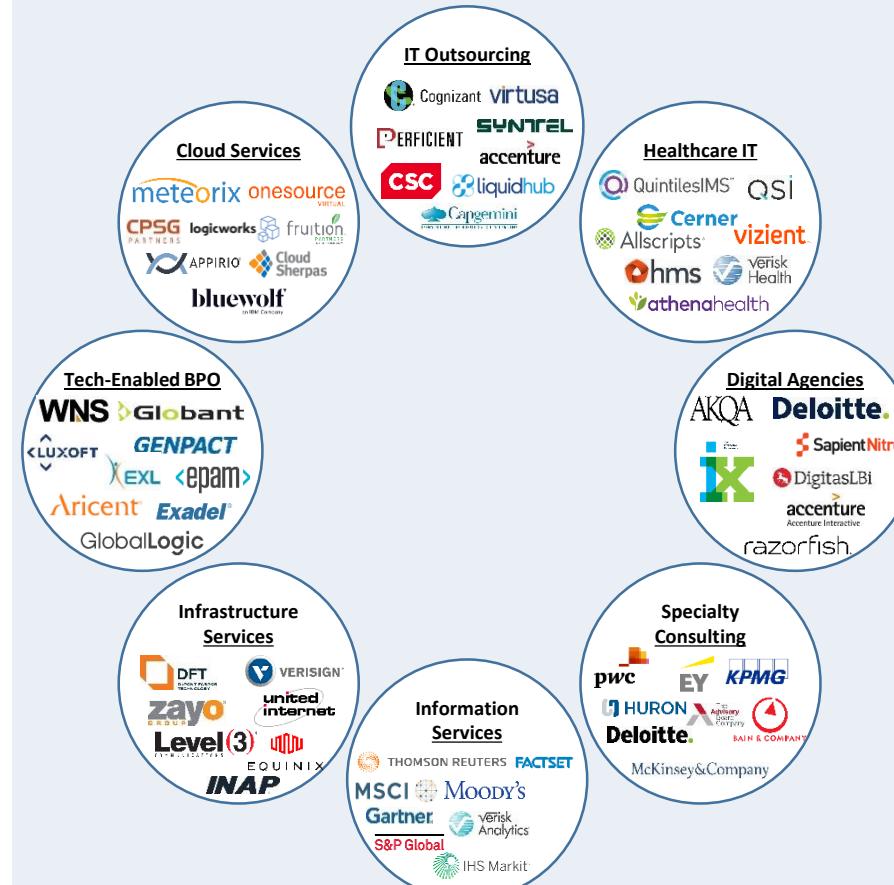
8+ Years of
Experience

20+ Transactions
Completed

Sector Coverage

Mufson Howe Hunter

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



Business Model Coverage

Tech-Enabled Solutions

Outsourcing Services

Enterprise Software

Internet

Mobile

MORTGAGE BUSINESS PROCESS OUTSOURCING (BPO)

Financial Services BPO is a large and growing market...

The banking, financial services and insurance (BFSI) sector accounts for a combined 32% of the \$135 billion BPO industry in 2017.¹

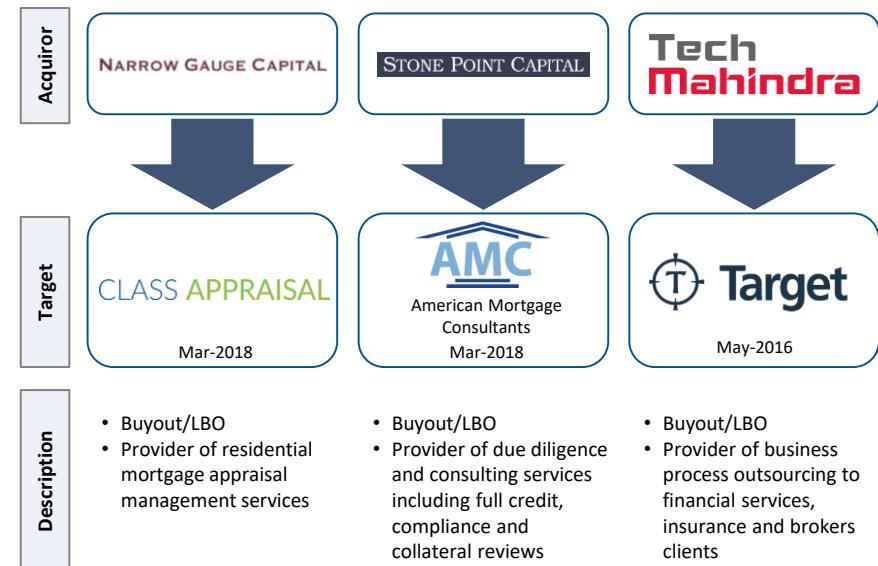
- Despite the already sizeable TAM, outsourcing in the BFSI segment will continue to grow, as increased pressures around regulatory compliance, competition from non-banks and rising customer experience expectations continue to be a challenge.
- Going forward, banks will need to focus on their traditional core strengths while partnering with vertically-oriented and technology-enabled BPO players to service non-core functions.

...and Mortgage BPO is one of the largest sub-segments²

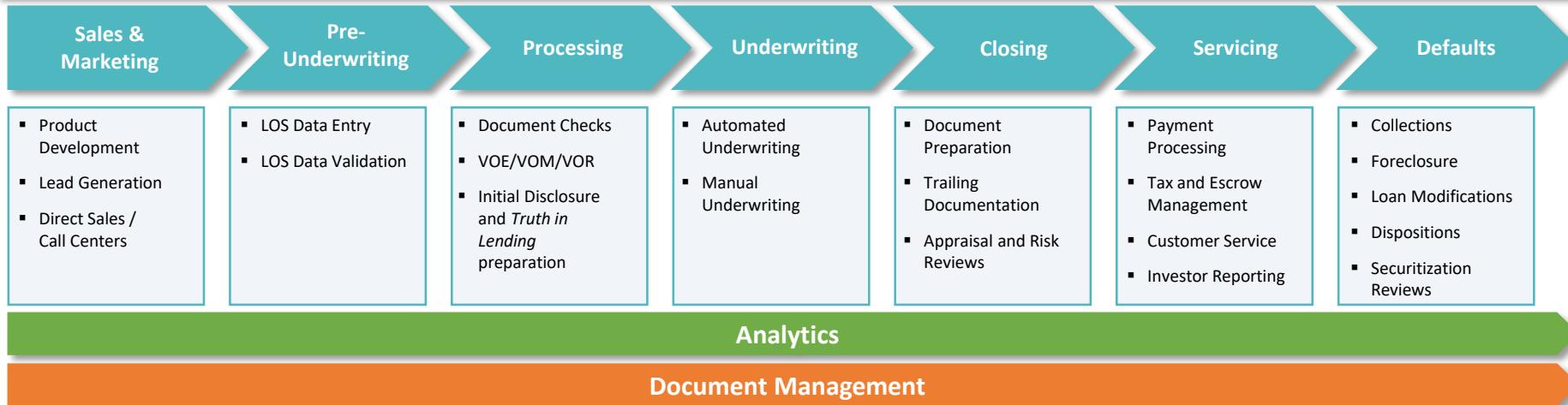
In order to remain competitive, BPO service providers' value proposition must focus on cost savings, reg-tech and customer loyalty solutions

- Risk & Regulatory Compliance: As regulation continues to intensify around the oversight of mortgage related activities, BPO players touting risk and compliance management tools will be even more relevant.
- Digital Transformation: BPO providers that can digitize the mortgage process to drive customer loyalty and cost saving will be in high demand.

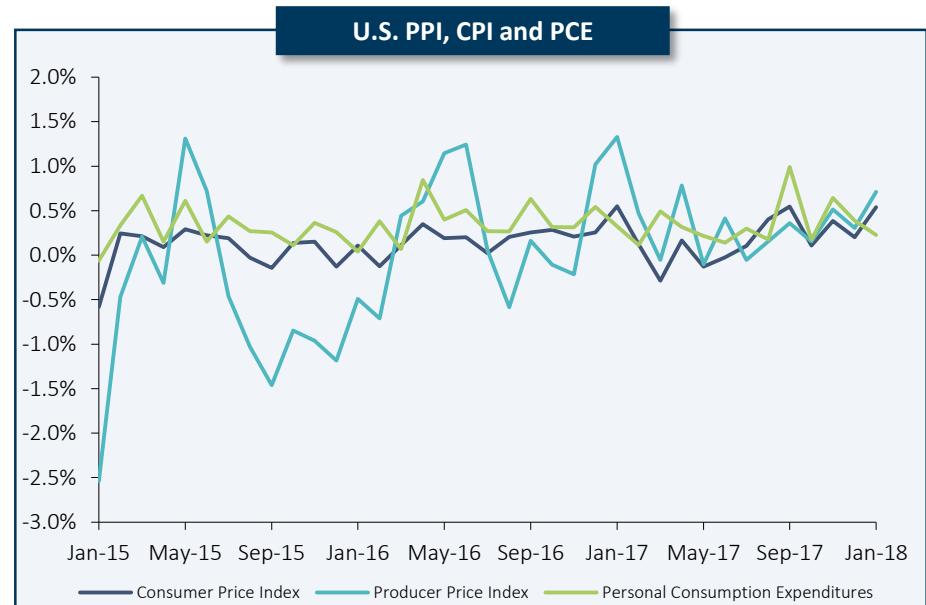
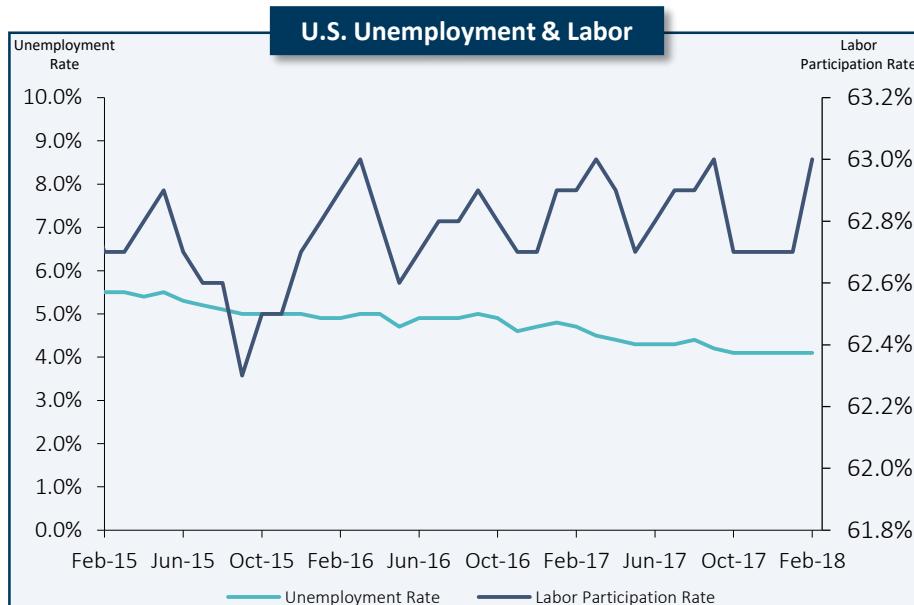
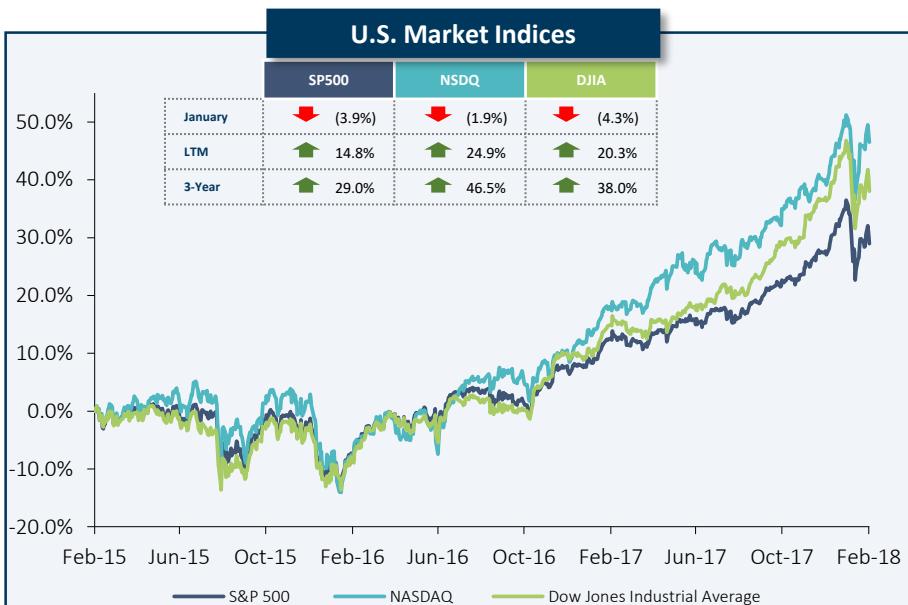
Spotlight: Recent Mortgage BPO Transactions



The Mortgage As-a-Service Value Chain | Core Processes that Benefit from BPO Adoption³



U.S. ECONOMIC INDICATORS



Sources: CapitalIQ, Federal Reserve Bank of St. Louis

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

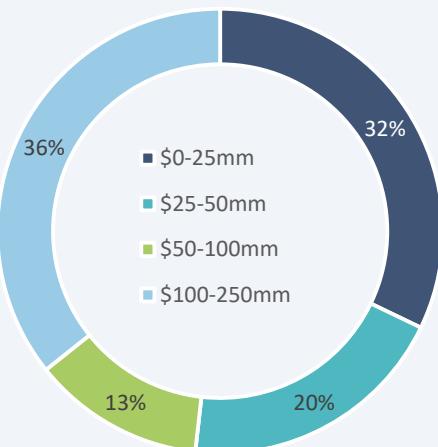
Select Feb. 2018 Buy-Outs**

Company	Investor	Date	Sector
Newport Credentialing Solutions	TractManager	Feb 20	Healthcare IT
oncology solutions	THE CHARTIS GROUP RIORDAN, LEWIS & HADEN	Feb 15	Healthcare IT
onboard INFORMATICS	ROSEWOOD PRIVATE INVESTMENTS Renovo CAPITAL	Feb 15	Info Services
XAVIENT DIGITAL	TELUS International Baring Private Equity Asia	Feb 6	IT Outsourcing
SkOUT SECURE INTELLIGENCE	RSE INVESTMENTS	Feb 5	Infrastructure
mct	IntegrChain AKKR	Feb 1	Healthcare IT

PE Buy-Outs, Trailing 8 Quarters, as of Feb. 28



PE Buy-Outs, by Deal Size



PE Buy-Outs, Historical Annual, as of Feb. 28



Source: Pitchbook

*For deals with announced transaction value

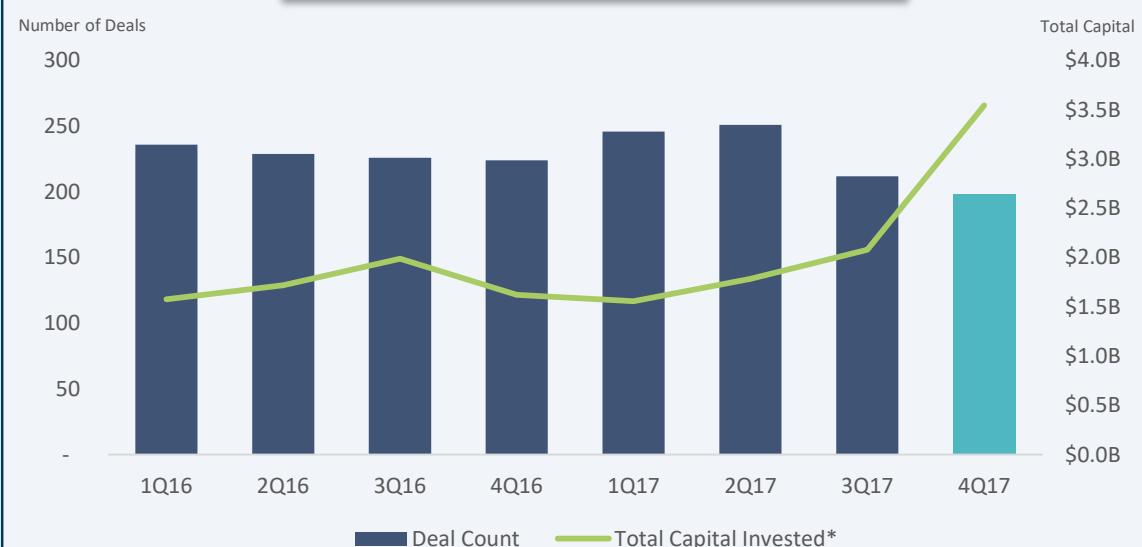
**Please contact the MHH Technology Services Group directly for any information regarding valuation and deal size

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

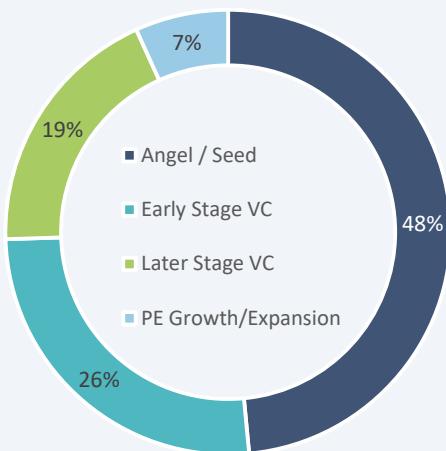
Select Feb. 2018 Minority Deals**

Company	Stage	Date	Sector
MAANA	Later Stage VC	Feb 27	Information Services
endotronix	Later Stage VC	Feb 26	Healthcare IT
XERTICA	Early Stage VC	Feb 20	IT Outsourcing
HeartFlow	Later Stage VC	Feb 14	Healthcare IT
ANATOMY NEXT	Accelerator/Incubator	Feb 12	Information Services
PAIGE	Early Stage VC	Feb 5	Healthcare IT

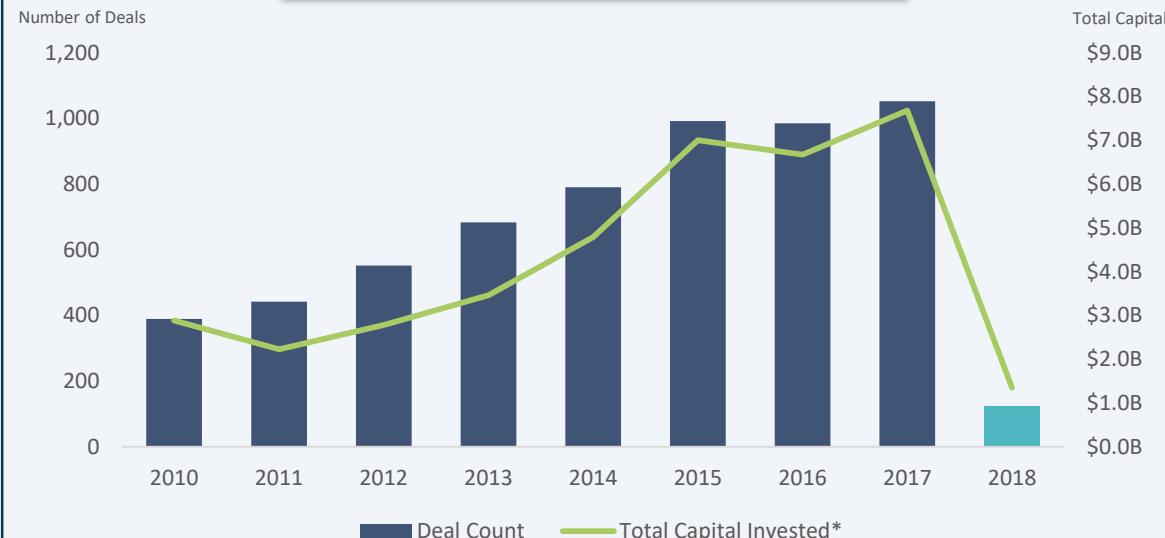
PE Minority, Trailing 8 Quarters, as of Feb. 28



PE Minority, by Stage



PE Minority, Historical Annual, as of Feb. 28



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

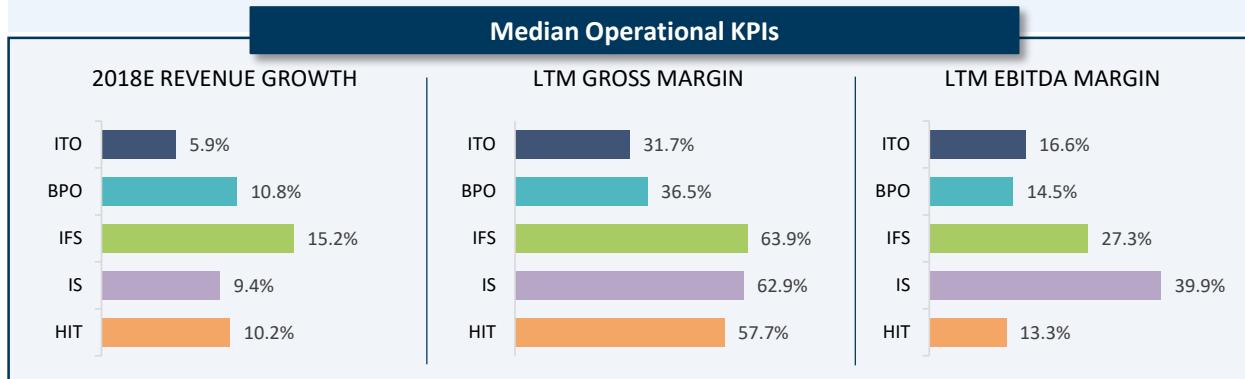
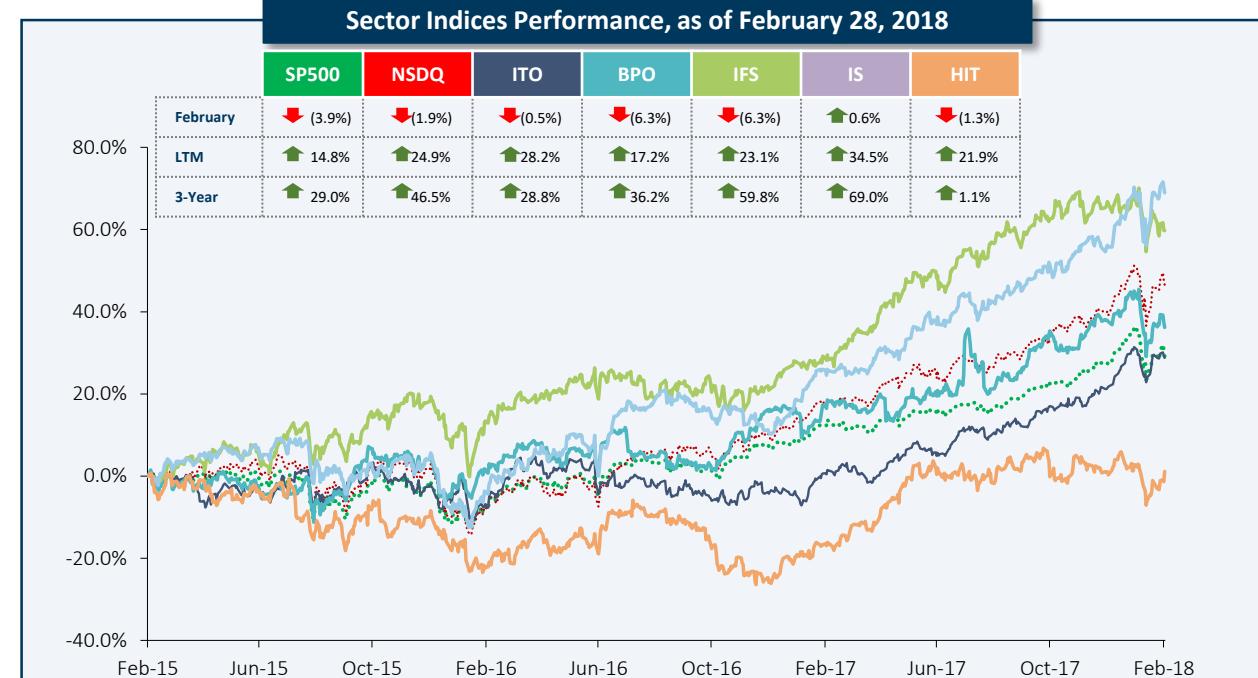
Infrastructure Services: providers of managed, hosting and consulting services around planning, designing, implementing and managing mission-critical IT infrastructure

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



Source: CapitalIQ



IT OUTSOURCING

Valuation Metrics

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)	\$99,290	\$38,945	\$41,604	31.7%	\$6,731	\$7,281	16.3%	2.7x	2.5x	2.3x	14.4 x	14.3 x	13.2 x
Cognizant Technology Solutions Corporation (CTSH)	\$48,232	\$16,226	\$17,662	38.2%	\$3,459	\$3,947	20.5%	3.0x	2.7x	2.5x	13.5 x	12.7 x	11.2 x
Infosys Limited (INFY)	\$39,071	\$11,334	\$12,183	35.0%	\$2,991	\$3,251	26.9%	3.3x	3.1x	2.9x	12.3 x	11.9 x	10.9 x
DXC Technology Company (DXC)	\$29,294	\$24,201	\$23,951	25.4%	\$5,057	\$5,168	15.7%	1.8x	1.5x	1.5x	10.8 x	7.0 x	6.8 x
HCL Technologies Limited (HCLTECH)	\$20,070	\$8,272	\$9,073	33.9%	\$1,866	\$2,032	22.6%	2.5x	2.3x	2.1x	11.2 x	10.4 x	9.5 x
CGI Group Inc. (GIB.A)	\$16,608	\$8,864	\$9,146	29.8%	\$1,623	\$1,699	16.6%	2.0x	2.0x	2.0x	11.5 x	11.0 x	10.5 x
Wipro Limited (BSE:507685)	\$20,198	\$8,737	\$9,276	29.0%	\$1,792	\$1,834	19.7%	2.1x	2.0x	1.9x	10.4 x	9.9 x	9.7 x
Alts SE (ATO)	\$13,925	\$15,645	\$16,035	14.5%	\$2,195	\$2,289	12.6%	0.9x	0.9x	0.9x	7.0 x	6.5 x	6.2 x
Syntel, Inc. (SYNT)	\$2,228	\$932	\$952	38.0%	\$233	\$242	26.9%	2.7x	2.6x	2.6x	9.6 x	10.6 x	10.2 x
Virtusa Corporation (VRTU)	\$1,404	\$1,154	\$1,255	28.7%	\$95	\$118	6.9%	1.5x	1.3x	1.2x	15.7 x	15.2 x	12.2 x
Perficient, Inc. (PRFT)	\$680	\$482	\$504	34.2%	\$77	\$83	11.3%	1.6x	1.5x	1.5x	10.9 x	9.7 x	8.9 x
Mean	\$26,455	\$12,254	\$12,876	30.7%	\$2,375	\$2,540	17.8%	2.2x	2.0x	1.9x	11.6 x	10.8 x	9.9 x
Median	\$20,070	\$8,864	\$9,276	31.7%	\$1,866	\$2,032	16.6%	2.1x	2.0x	2.0x	11.2 x	10.6 x	10.2x

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

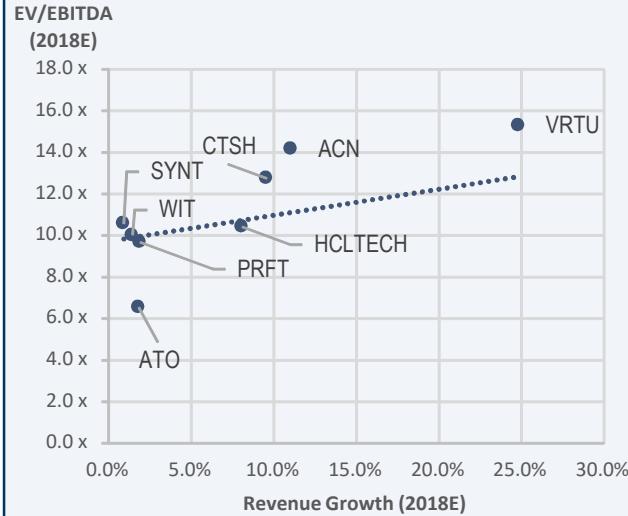
(1) As of close February 28, 2018.

‡ = excluded from Mean and Median calculations

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

Source: Public Filings, Press Releases and Published Research Reports

Relative Valuation**



Select February 2018 Precedent Transactions*

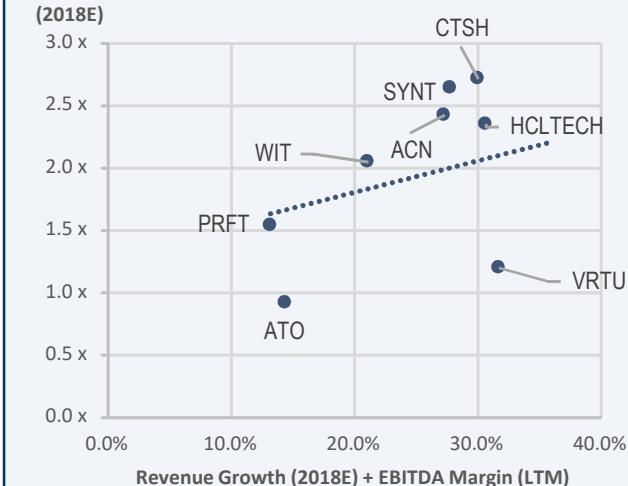
Announced	Acquirer	Target	Description
February 23			▪ MSP and technology consulting services
February 12	GENERAL DYNAMICS		▪ IT solutions and professional services
February 12			▪ SCADA system application
February 5			▪ CRM software integration and automation
February 2			▪ IT based support services and solutions

Source: CapitalIQ

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

**Excluded: DXC

EV/Revenue (2018E)



BUSINESS PROCESS OUTSOURCING

Valuation Metrics

Company	Operating Metrics										Valuation Multiples					
	Market Cap ⁽¹⁾	Revenue		LTM Gross Margin	EBITDA ⁽²⁾		LTM EBITDA Margin	EV / Revenue			EV / EBITDA					
		2018E	2019E		2018E	2019E		LTM	2018E	2019E	LTM	2018E	2019E			
Aubmatic Data Processing, Inc. (ADP)	\$51,118	\$13,732	\$14,671	42.7%	\$2,905	\$3,218	21.3%	4.0x	3.7x	3.5x	17.9 x	17.7 x	16.0 x			
Genpact Limited (G)	\$6,049	\$2,967	\$3,202	38.5%	\$502	\$550	15.5%	2.5x	2.3x	2.1x	14.7 x	13.5 x	12.3 x			
EPAM Systems, Inc. (EPAM)	\$6,000	\$1,806	\$2,181	36.5%	\$320	\$391	14.5%	3.8x	3.0x	2.5x	20.8 x	17.0 x	13.9 x			
WNS (Holdings) Limited (WNS)	\$2,264	\$779	\$864	32.5%	\$176	\$202	12.8%	3.0x	2.8x	2.5x	17.7 x	12.2 x	10.7 x			
Globant S.A. (GLOB)	\$1,833	\$503	\$603	36.5%	\$86	\$104	12.5%	4.3x	3.5x	2.9x	26.9 x	20.8 x	17.1 x			
ExiService Holdings, Inc. (EXLS)	\$1,950	\$844	\$920	35.0%	\$150	\$169	14.6%	2.3x	2.1x	1.9x	13.0 x	11.7 x	10.4 x			
Luxoft Holding, Inc. (LXFT)	\$1,459	\$990	\$1,135	37.5%	\$152	\$196	10.6%	1.6x	1.4x	1.2x	11.2 x	9.2 x	7.1 x			
Mean	\$10,096	\$3,089	\$3,368	37.0%	\$613	\$690	14.5%	3.1x	2.7x	2.4x	17.5 x	14.6 x	12.5x			
Median	\$2,264	\$990	\$1,135	36.5%	\$176	\$202	14.5%	3.0x	2.8x	2.5x	17.7 x	13.5x	12.3x			

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

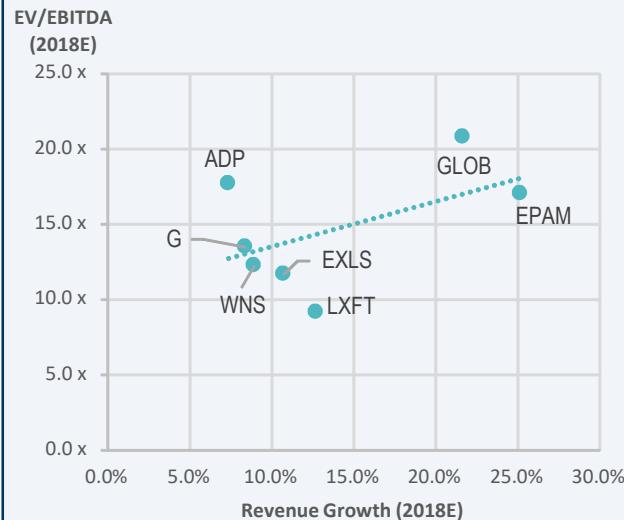
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Source: Public Filings, Press Releases and Published Research Reports

(1) As of close February 28, 2018.

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

Relative Valuation



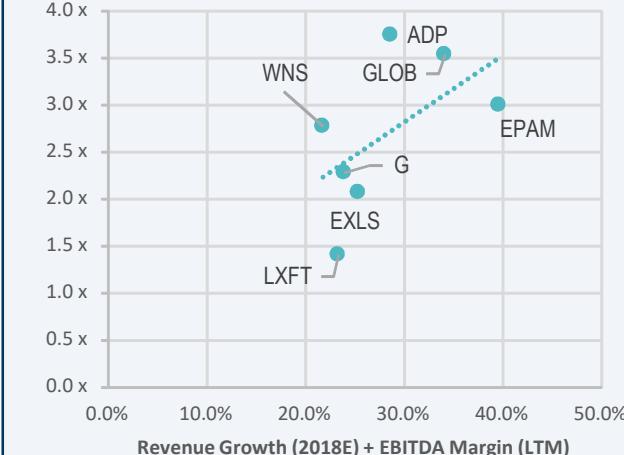
Select February 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
February 27		Corridor Platforms	<ul style="list-style-type: none"> Risk management to banks and financial services
February 20		VETTRY	<ul style="list-style-type: none"> Online hiring market place
February 9		HOGG ROBINSON GROUP [®]	<ul style="list-style-type: none"> B2B service company in travel, payment, and expense management
February 7		HR BENEFIT ADVISORS	<ul style="list-style-type: none"> Employee benefits consulting and benefits admin
February 5		carillion	<ul style="list-style-type: none"> Facility management services

Source: CapitalIQ

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

EV/Revenue (2018E)



INFRASTRUCTURE SERVICES

Valuation Metrics

Company	Market Cap ⁽¹⁾	Operating Metrics					Valuation Multiples						
		Revenue		LTM Gross Margin		EBITDA ⁽²⁾		LTM EBITDA Margin		EV / Revenue			
		2018E	2019E	2018E	2019E	2018E	2019E	2018E	2019E	2018E	2019E		
Equinix, Inc. (REIT) (EQIX)	\$31,065	\$5,043	\$5,556	49.8%	\$2,399	\$2,694	43.4%	9.1x	7.9x	7.2x	19.2 x	16.6 x	14.7 x
United InternetAG (UTDI)	\$13,611	\$6,223	\$6,630	35.3%	\$1,510	\$1,687	22.0%	3.3x	2.6x	2.4x	14.8 x	10.6 x	9.5 x
Zayo Group Holdings, Inc. (ZAYO)	\$8,893	\$2,660	\$2,758	63.9%	\$1,349	\$1,434	45.8%	5.7x	5.4x	5.2x	11.5 x	10.6 x	9.9 x
VeriSign, Inc. (VRSN)	\$11,268	\$1,208	\$1,252	83.4%	\$858	\$898	65.0%	9.7x	9.3x	9.0x	13.9 x	13.1 x	12.5 x
GoDaddy Inc. (GDDY)	\$8,011	\$2,599	\$2,887	65.3%	\$714	\$825	13.1%	4.5x	3.9x	3.5x	27.5 x	14.2 x	12.3 x
Wix.com Ltd. (WIX)	\$3,412	\$594	\$743	83.7%	\$106	\$166	-10.4%	7.5x	5.4x	4.3x	NM	30.0 x	19.1 x
Endurance International Group Holdings, Inc. (EIGI)	\$1,034	\$1,154	\$1,169	50.6%	\$332	\$346	24.0%	2.4x	2.5x	2.5x	8.4 x	8.7 x	8.3 x
Web.com Group, Inc. (WEB)	\$770	\$762	\$791	68.4%	\$192	\$208	20.0%	1.9x	1.8x	1.8x	8.1 x	7.3 x	6.7 x
Internap Corporation (INAP)	\$257	\$324	\$342	53.0%	\$111	\$119	30.6%	2.7x	2.3x	2.2x	8.5 x	6.8 x	6.3 x
Mean	\$8,702	\$2,285	\$2,459	61.5%	\$841	\$931	29.2%	5.2x	4.6x	4.2x	14.0 x	13.1 x	11.1x
Median	\$8,011	\$1,208	\$1,252	63.9%	\$714	\$825	27.3%	4.5x	3.9x	3.5x	12.7 x	10.6x	9.9x

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

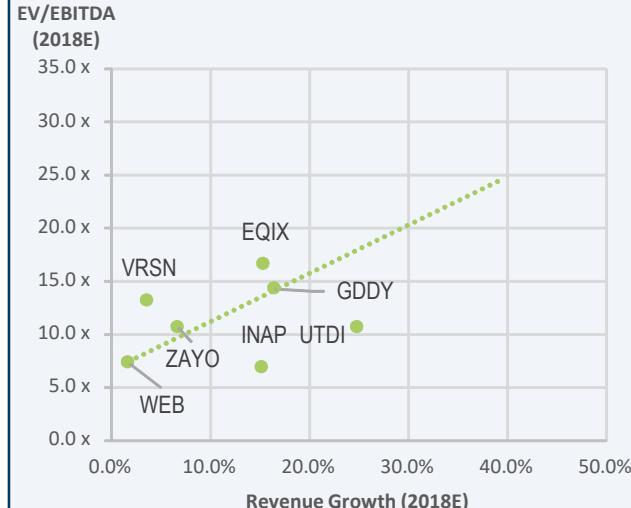
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(2) Excludes non-recurring, discontinued operations and stock-based compensation

Source: Public Filings, Press Releases and Published Research Reports

Relative Valuation**



Select February 2018 Precedent Transactions*

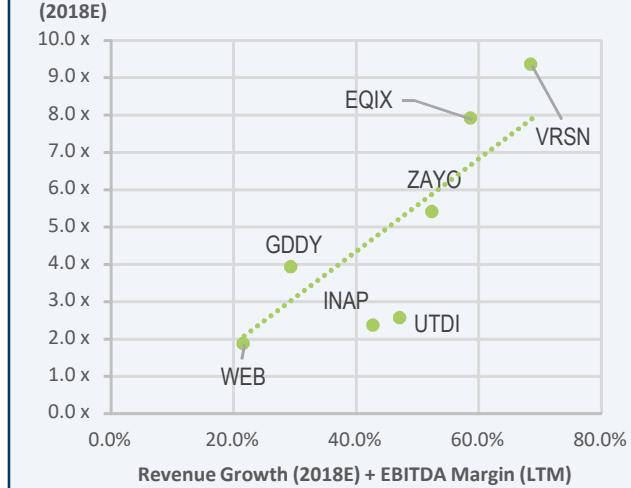
Announced	Acquirer	Target	Description
February 28	verizon	 STRAIGHTPATH [®] CONNECTING PEOPLE WITH INTELLIGENCE	▪ Wireless communication equipment
February 28	 ZAYO [®] GROUP	 SPREAD [®] NETWORKS	▪ Connectivity products
February 15	 GRANICUS	 VISION [™]	▪ Website development, hosting and solutions
February 14	 EQUINIX	 INFOMART [®] DATA CENTERS Dallas Data Center	▪ Data centers
February 6	 PREMIER BPO	 dinCloud	▪ Virtual desktops Host

Source: CapitalIQ

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

**Excluded: WIX

EV/Revenue (2018E)



INFORMATION SERVICES

Valuation Metrics

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	LTM	2018E	2019E	
S&P Global Inc. (SPGI)	\$48,698	\$6,433	\$6,825	71.7%	\$3,181	\$3,405	48.3%	8.4x	7.9x	7.5x	16.8 x	16.0 x	14.9 x
Moody's Corporation (MCO)	\$31,891	\$4,703	\$4,989	70.9%	\$2,286	\$2,456	47.3%	8.7x	7.8x	7.3x	17.3 x	16.0 x	14.8 x
IQVIA Holdings Inc. (Q)	\$20,477	\$10,029	\$10,565	42.7%	\$2,199	\$2,378	21.1%	3.7x	3.0x	2.8x	16.6 x	13.6 x	12.6 x
IHS Markit Ltd. (INFO)	\$18,796	\$3,846	\$4,066	62.3%	\$1,520	\$1,651	31.1%	6.4x	5.9x	5.6x	16.6 x	15.0 x	13.9 x
Verisk Analytics, Inc. (VRSK)	\$16,863	\$2,361	\$2,525	63.5%	\$1,147	\$1,240	46.0%	9.2x	8.4x	7.8x	20.0 x	17.2 x	15.9 x
MSCI Inc. (MSCI)	\$12,729	\$1,442	\$1,580	78.5%	\$790	\$881	51.7%	10.9x	9.7x	8.8x	20.0 x	17.6 x	15.8 x
Gartner, Inc. (IT)	\$10,301	\$4,147	\$4,598	60.1%	\$776	\$873	11.5%	3.9x	3.1x	2.8x	28.3 x	16.8 x	14.9 x
FactSet Research Systems Inc. (FDS)	\$7,929	\$1,373	\$1,464	53.2%	\$469	\$499	33.9%	6.5x	6.0x	5.6x	17.8 x	17.6 x	16.5 x
Mean	\$20,961	\$4,292	\$4,576	62.9%	\$1,546	\$1,673	36.4%	7.2x	6.5x	6.0x	19.2 x	16.2 x	14.9 x
Median	\$17,830	\$3,996	\$4,332	62.9%	\$1,334	\$1,446	39.9%	7.5x	6.9x	6.5x	17.5 x	16.4 x	14.9 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 February 28, 2018.

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

Relative Valuation**



Select February 2018 Precedent Transactions*

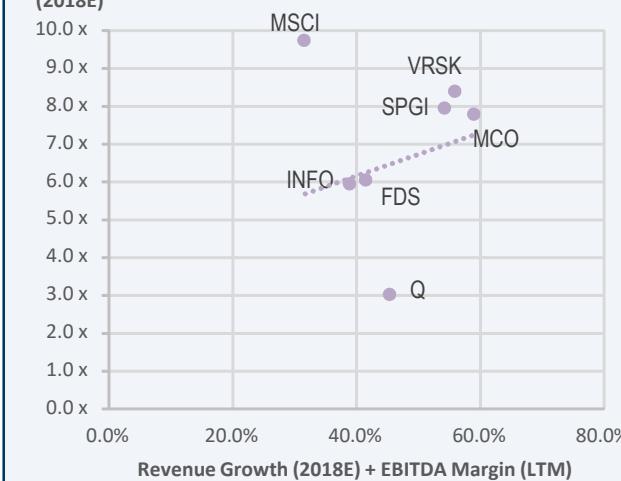
Announced	Acquirer	Target	Description
February 28		THE SURVEY GROUP	<ul style="list-style-type: none"> Compensation, HR info and consulting services
February 21	TEMENOS The Banking Software Company	Fidessa	<ul style="list-style-type: none"> Info solutions to the financial community
February 12	Caixin GLOBAL	Euromoney Institutional Investor PLC Global Market Intelligence Division	<ul style="list-style-type: none"> Market research and intelligence services
February 6	REPUTATION INSTITUTE	mettle	<ul style="list-style-type: none"> Big data analytics and social media consulting
February 1	FT FINANCIAL TIMES	Longitude THOUGHT LEADERSHIP SPECIALISTS	<ul style="list-style-type: none"> Advisory, research and content development services

Source: CapitalIQ

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

**Gartner (IT) y/y growth rate pro forma adjusted for the acquisition of CEB, Inc.

EV/Revenue (2018E)



HEALTHCARE IT

Valuation Metrics

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	2018E	2019E	LTM	2018E	2019E	LTM	2018E	2019E
Cerner Corporation (CERN)	\$21,339	\$5,539	\$6,010	85.1%	\$1,735	\$1,908	27.1%	4.2x	3.8x	3.5x	14.5x	12.1x	11.0x
Veeva Systems Inc. (VEEV)	\$9,852	\$819	\$964	69.2%	\$266	\$317	24.1%	13.3x	11.1x	9.4x	41.5x	34.1x	28.7x
athenahealth, Inc. (ATHN)	\$5,603	\$1,349	\$1,499	53.1%	\$350	\$408	13.5%	4.7x	4.2x	3.8x	25.7x	16.3x	14.0x
Allscripts Healthcare Solutions, Inc. (MDRX)	\$2,508	\$2,197	\$2,308	49.6%	\$437	\$472	8.4%	2.4x	2.0x	1.9x	22.8x	10.1x	9.3x
Inovalon Holdings, Inc. (INOV)	\$1,733	\$507	\$553	66.4%	\$134	\$152	16.9%	3.3x	3.0x	2.7x	16.1x	11.2x	9.9x
Quality Systems, Inc. (QSII)	\$800	\$537	\$558	55.4%	\$80	\$88	9.7%	1.5x	1.5x	1.5x	13.2x	10.1x	9.3x
National Research Corporation (NRCI.B)	\$771	\$128	NA	58.3%	\$43	NA	32.9%	6.3x	5.8x	NM	19.0x	17.2x	NM
HealthStream, Inc. (HSTM)	\$774	\$229	\$239	57.2%	\$39	\$43	10.5%	2.6x	2.8x	2.7x	23.1x	16.3x	14.9x
Computer Programs and Systems, Inc. (CPSI)	\$401	\$287	\$298	54.6%	\$48	\$48	13.0%	2.0x	1.9x	1.8x	12.6x	11.3x	11.3x
Castlight Health, Inc. (CSLT)	\$475	\$153	\$181	64.1%	(\$11)	\$8	-41.8%	2.9x	2.5x	2.1x	NM	NM	NM
Mean	\$4,426	\$1,175	\$1,401	61.3%	\$312	\$383	11.4%	4.3x	3.9x	3.3x	20.9x	15.4x	13.5x
Median	\$1,266	\$522	\$558	57.7%	\$107	\$152	13.3%	3.1x	2.9x	2.7x	19.0x	12.1x	11.1x

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

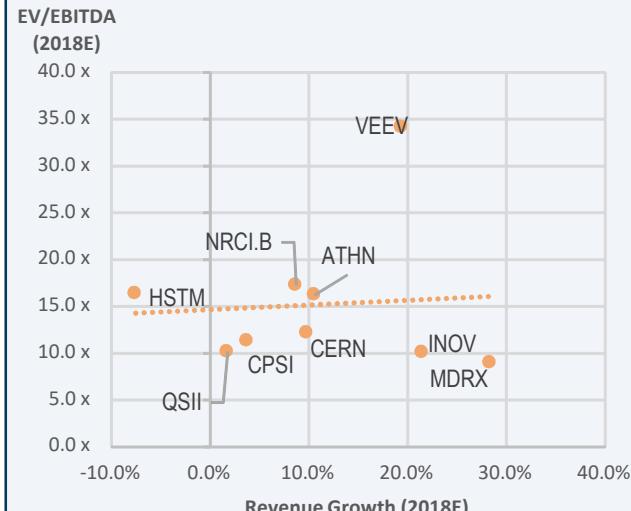
(1) As of close February 28, 2018.

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Source: Public Filings, Press Releases and Published Research Reports

Relative Valuation**



Select February 2018 Precedent Transactions*

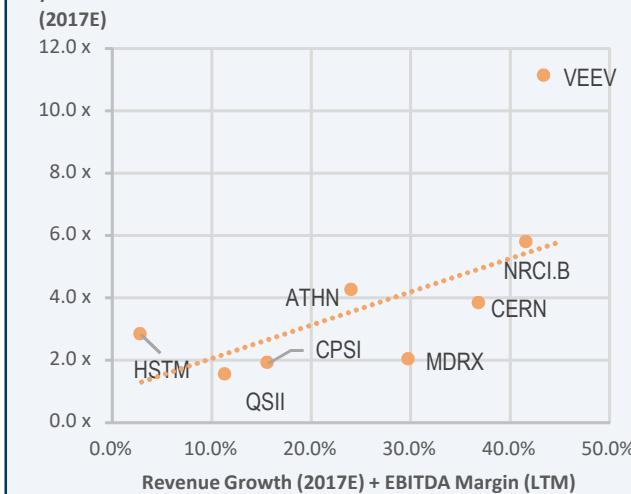
Announced	Acquirer	Target	Description
February 27			<ul style="list-style-type: none"> Data analytics provider focuses on government reimbursement streams for health care providers
February 26			<ul style="list-style-type: none"> Technology-enabled solutions that connects healthcare providers, public health agencies, and emergency management personnel
February 15			<ul style="list-style-type: none"> Provider of data pipelines and structured databases
February 15		Allscripts OneContent Business	<ul style="list-style-type: none"> Content management software
February 2			<ul style="list-style-type: none"> Develops management and security software of information flow in the health sector

Source: CapitalIQ

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

**Excluded: CSLT

EV/Revenue (2017E)



TECHNOLOGY SERVICES MONTHLY

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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.

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