



Mufson Howe Hunter

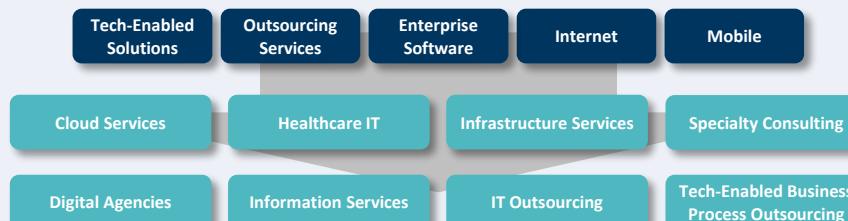
INVESTMENT BANKERS FOR GROWTH

*TECHNOLOGY SERVICES MONTHLY
ENGINEERING SERVICES: OUTSOURCED PRODUCT
DEVELOPMENT (OPD)*

April 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 of outsourced product development. 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...



- [Google's Parent Company Spends For a Future Beyond Ads](#)
- [Why Tech Titans Are Betting on India, in 14 Charts](#)
- [Blockchain templates unveiled by Amazon Web Services](#)
- [Inside the Decline of Sears, the Amazon of the 20th Century](#)
- [Porsche Positions Itself Against Tesla, on the Road and Beside It](#)

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

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)

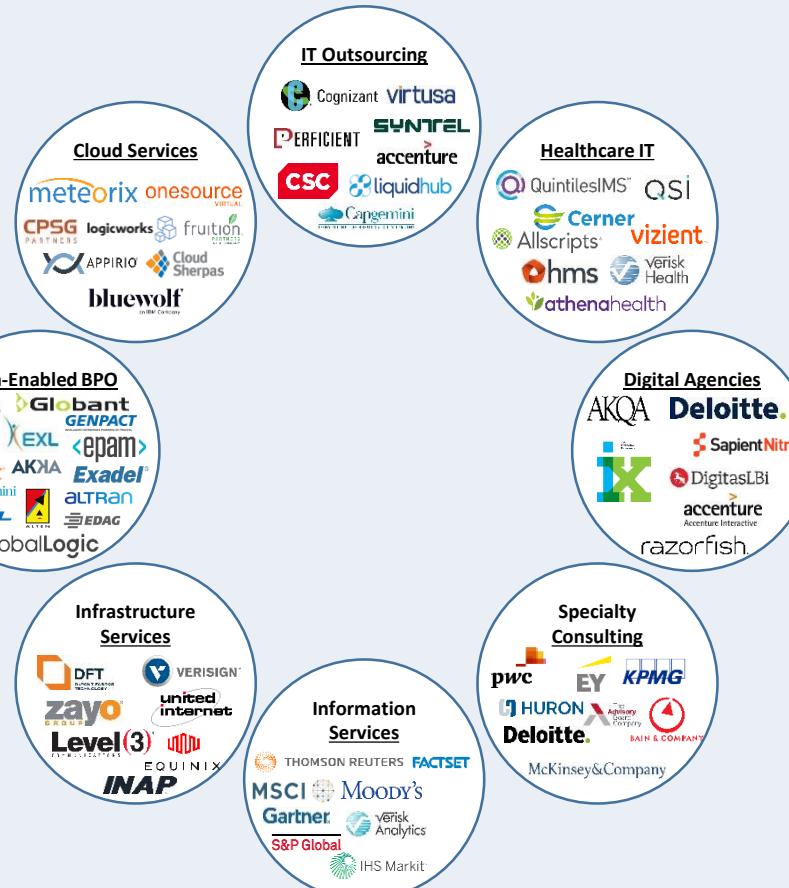
8+ Years of
Experience

20+ Transactions
Completed

Sector Coverage

Mufson Howe Hunter

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



Business Model Coverage

Tech-Enabled Solutions

Outsourcing Services

Enterprise Software

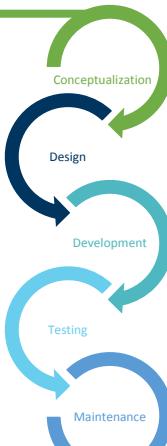
Internet

Mobile

ENGINEERING SERVICES: OUTSOURCED SOFTWARE PRODUCT DEVELOPMENT

Outsourced Software Product Development

- Outsourced software product development (OPD) service providers serve as companies' strategic technology service partners to support the creation of software.
- OPD service providers typically have a meaningful role in all aspects of the product lifecycle from product conceptualization through product maintenance.
- Many businesses are currently looking to upgrade their software products and are using technology service partners to help navigate a new wave of disruptive themes – e.g., *Internet of Things (IoT), Robotic Process Automation (RPA) and blockchain*.



Growth Drivers...More Than Labor Arbitrage

- The advantages of outsourcing product development extend beyond the labor arbitrage impact of using a global sourcing model to reduce spend.
- As engineering converges with technology, enterprises struggle to balance speed to market with quality. Engaging with a strategic OPD partner closes the gap.



Shallow Labor Pool: OPD brings in difficult to source, localized talent with both technical and functional (domain) expertise.



Co-Innovation & Knowledge Transfer: Service providers and enterprises that embrace co-innovation models will benefit from faster time-to-market and continued knowledge advancement.



Smarter Products: OPD services provides advance the use of data to drive customer value with smarter “connected” products.

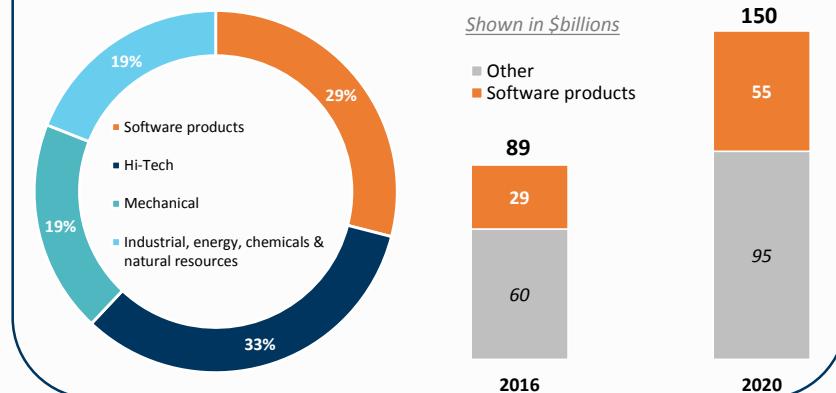


Process Improvements: OPD service providers help drive product lifecycle efficiencies & quality improvements with analytics and automation.

Market Sizing and Estimated Growth¹

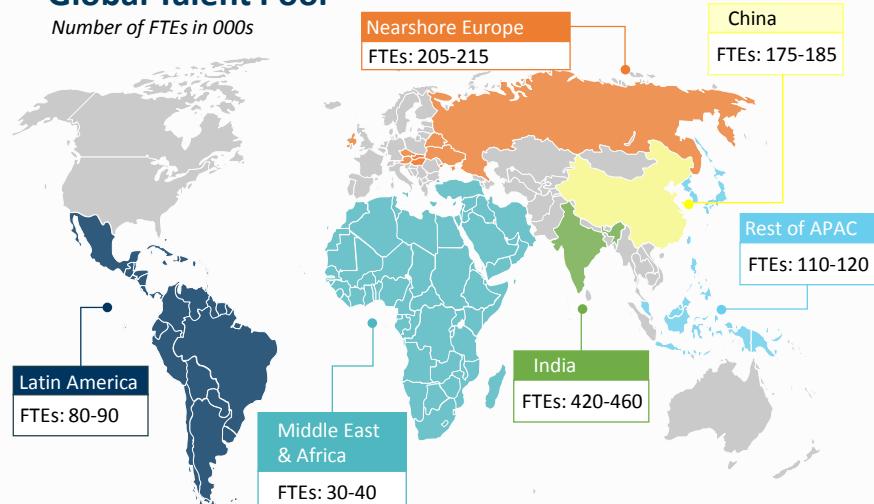
- Everest Group estimates the engineering global sourcing industry, including both service providers and Global In-house Centers (GICs), will grow at an annual rate of 14-16%, reaching US\$145-155 billion by 2020. **Software product engineering is estimated to account for 29% of the industry and is expected to grow at an annual rate of 16-18%.**

Engineering global sourcing expected to US\$145-155 billion by 2020



Global Talent Pool²

Number of FTEs in 000s



¹ Everest Group, *New Paradigm in ER&D Services: Convergence of Engineering and Technology – Part 1*, Everest Global, Inc., Mar 2017; Everest Group Market Trends and Services PEAK Matrix™ Assessment: Adapting to the New Normal, Dec 2017.

² Everest Group, *Engineering Research & Development Around the Globe | Market Insights™*, Aug 2016

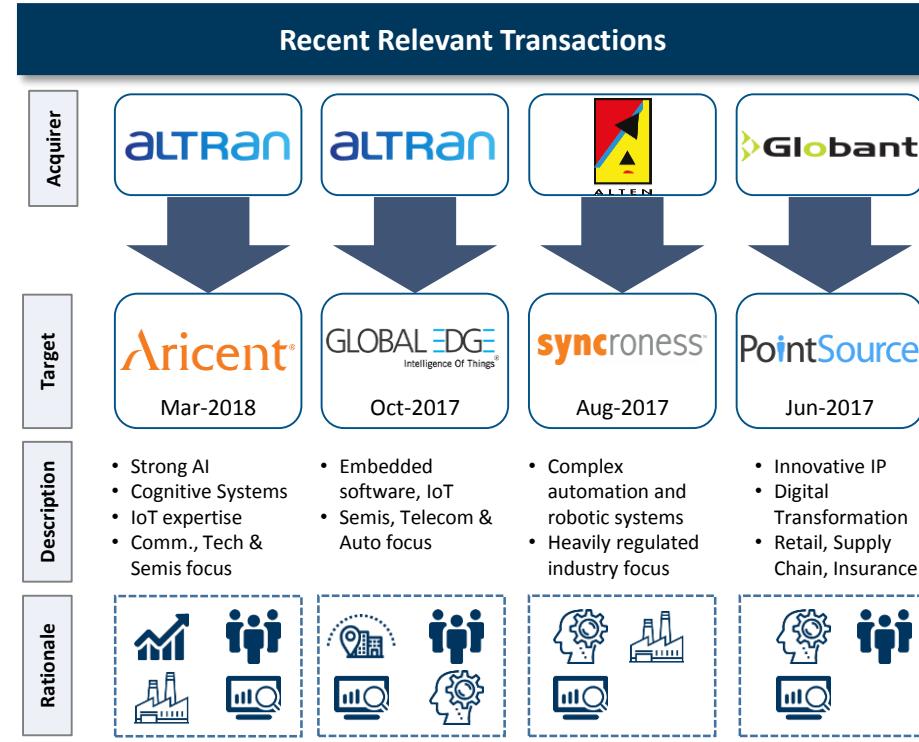
ENGINEERING SERVICES: OUTSOURCED PRODUCT DEVELOPMENT

OPD Value Drivers

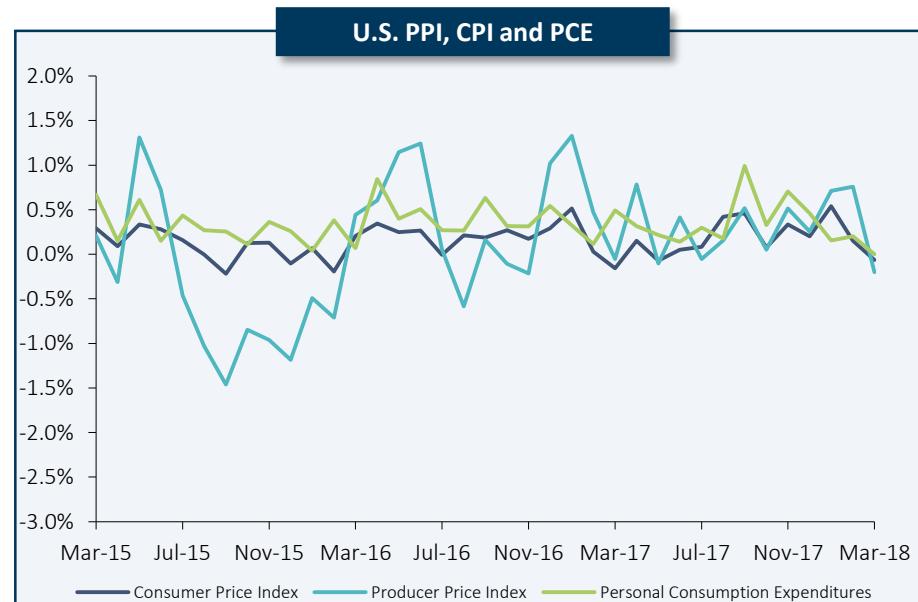
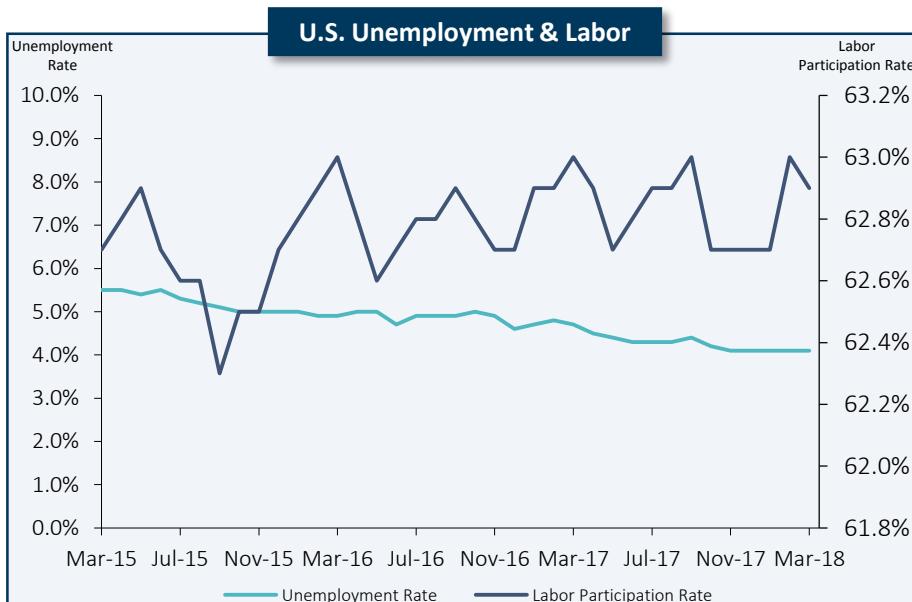
- Cradle-to-Grave Service Offering:** Leaders in the category have demonstrated an ability to deliver complete product development services as true, trusted OPD partners.
- Thought Leadership Drives Managed Services:** Service providers leading with a thought leadership approach and embracing co-innovation models have a distinct advantage in broadening client relationships and converting initial OPD engagements into sticky, long-term managed service relationships.
- Technical Expertise & Deep Domain Expertise is Difficult to Source:** Leading OPD service providers bring a bench of highly coveted, localized talent with strong technical and domain-specific expertise.
- Intellectual Property:** Service providers that possess a formalized innovation culture that leverages proprietary process-oriented and vertical-specific intellectual property will continue to be highly sought after partners.

Consolidation Trends

- As OPD growth accelerates and general IT services face continued margin pressures, global ITO players and pure-play OPD service providers are looking to significantly invest in the sector.
- Industry participants have been busy opening OPD-specific offshore development centers (ODCs) across the globe and focusing acquisition efforts on the sector to add scale, new verticals, intellectual property and point solutions.



U.S. ECONOMIC INDICATORS



Sources: CapitalIQ, Federal Reserve Bank of St. Louis

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

Select Mar. 2018 Buy-Outs**

Company	Investor	Date	Sector
 AMC	STONE POINT CAPITAL	Mar 22	Business Process Outsourcing
 Advanced Discovery	 Consilio GI PARTNERS	Mar 21	IT Outsourcing
 DRS	The HiGro Group	Mar 20	Business Process Outsourcing
 FSEnet	 Gladson	Mar 15	IT Outsourcing
 provation	 CLEARLAKE CAPITAL	Mar 9	Healthcare IT
 TYG Insurance	 HUB International	Mar 6	Business Process Outsourcing

PE Buy-Outs, Trailing 8 Quarters, as of Mar. 30



PE Buy-Outs, by Deal Size



PE Buy-Outs, Historical Annual, as of Mar. 30



Source: Pitchbook

*For deals with announced transaction value

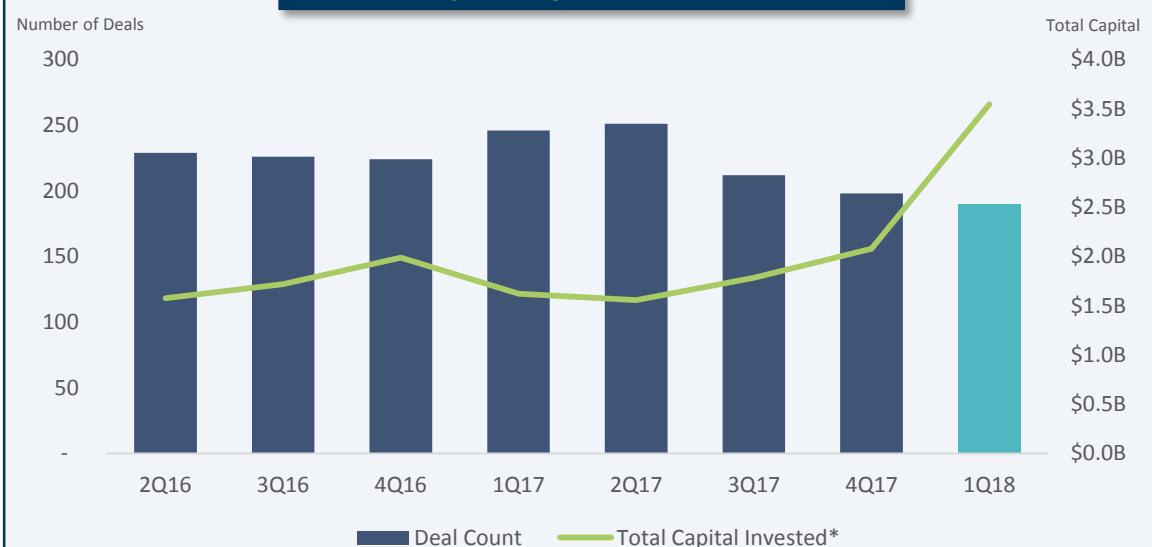
**Please contact the MHH Technology Services Group directly for any information regarding valuation and deal size

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

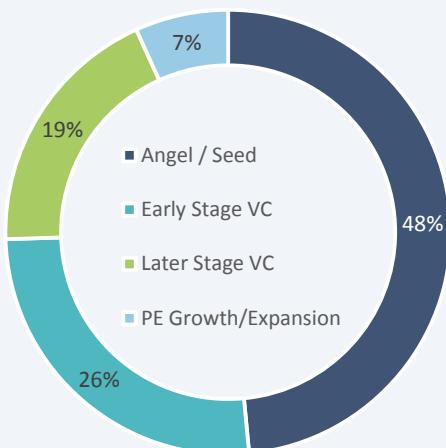
Select Mar. 2018 Minority Deals**

Company	Stage	Date	Sector
Accolade	Later Stage VC	Mar 29	Healthcare IT
TEMPUS	Later Stage VC	Mar 23	Healthcare IT
drillinginfo better, faster decisions	PE Growth /Expansion	Mar 22	Information Services
BEDROCK	Seed Round	Mar 19	Information Services
ensozo	Corporate-backed	Mar 14	Infrastructure Services
eHealth TECHNOLOGIES	Later Stage VC	Mar 8	Healthcare IT

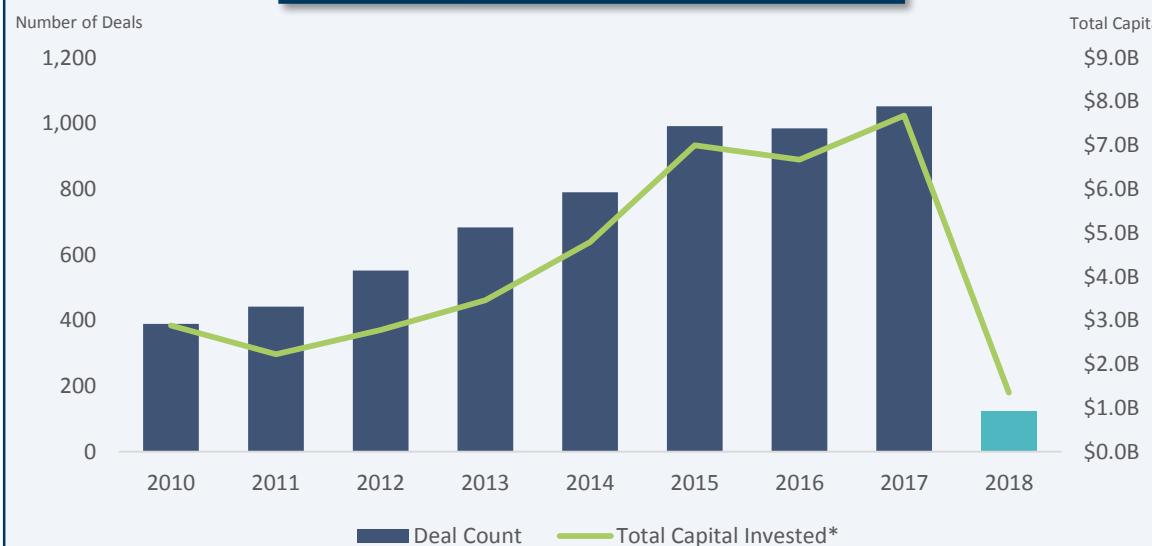
PE Minority, Trailing 8 Quarters, as of Mar. 30



PE Minority, by Stage



PE Minority, Historical Annual, as of Mar. 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

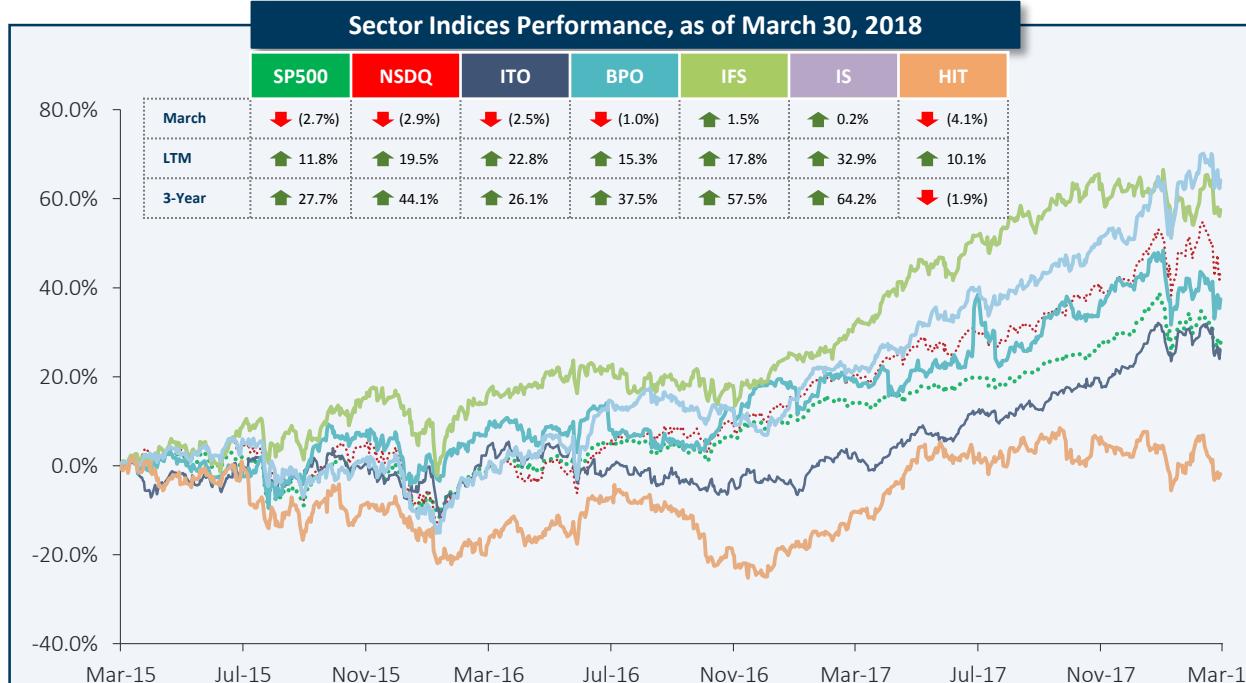
Infrastructure Services: providers of managed, hosting and consulting services around planning, designing, implementing and managing mission-critical IT infrastructure

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



Source: CapitalIQ

Median Valuation Metrics



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)	\$98,714	\$39,837	\$42,467	31.5%	\$6,812	\$7,328	16.2%	2.6x	2.4x	2.3x	13.8x	14.1x	13.1x
Cognizant Technology Solutions Corporation (CTSH)	\$47,338	\$16,231	\$17,652	38.2%	\$3,460	\$3,971	20.5%	2.9x	2.7x	2.4x	13.3x	12.5x	10.9x
DXC Technology Company (DXC)	\$28,720	\$24,186	\$23,943	25.4%	\$5,080	\$5,168	15.7%	1.7x	1.4x	1.4x	10.6x	6.8x	6.7x
Infosys Limited (INFY)	\$37,574	\$11,500	\$12,368	34.8%	\$2,968	\$3,158	27.0%	3.1x	3.0x	2.8x	11.5x	11.5x	10.8x
HCL Technologies Limited (HCLTECH)	\$20,599	\$8,434	\$9,251	33.9%	\$1,933	\$2,094	22.6%	2.6x	2.4x	2.1x	11.6x	10.3x	9.5x
CGI Group Inc. (GIB.A)	\$16,780	\$9,123	\$9,414	29.8%	\$1,671	\$1,748	16.6%	2.1x	2.0x	1.9x	11.6x	10.8x	10.4x
Wipro Limited (BSE:507685)	\$19,345	\$8,642	\$9,168	29.0%	\$1,787	\$1,854	19.7%	2.0x	2.0x	1.9x	10.2x	9.5x	9.2x
Alts SE (ATO)	\$14,444	\$15,510	\$15,885	14.5%	\$2,175	\$2,320	12.6%	0.9x	1.0x	0.9x	7.1x	6.8x	6.4x
Syntel, Inc. (SYNT)	\$2,118	\$932	\$952	38.0%	\$233	\$242	26.9%	2.5x	2.5x	2.5x	9.2x	10.1x	9.7x
Virtusa Corporation (VRTU)	\$1,426	\$1,205	\$1,352	28.7%	\$94	NA	6.9%	1.5x	1.2x	1.1x	16.0x	15.5x	NM
Perficient, Inc. (PRFT)	\$798	\$490	\$519	34.2%	\$78	\$86	11.3%	1.8x	1.7x	1.6x	12.4x	10.8x	9.9x
Mean	\$26,169	\$12,372	\$12,997	30.7%	\$2,390	\$2,797	17.8%	2.2x	2.0x	1.9x	11.6x	10.8x	9.6x
Median	\$19,345	\$9,123	\$9,414	31.5%	\$1,933	\$2,207	16.6%	2.1x	2.0x	1.9x	11.6x	10.8x	9.8x

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

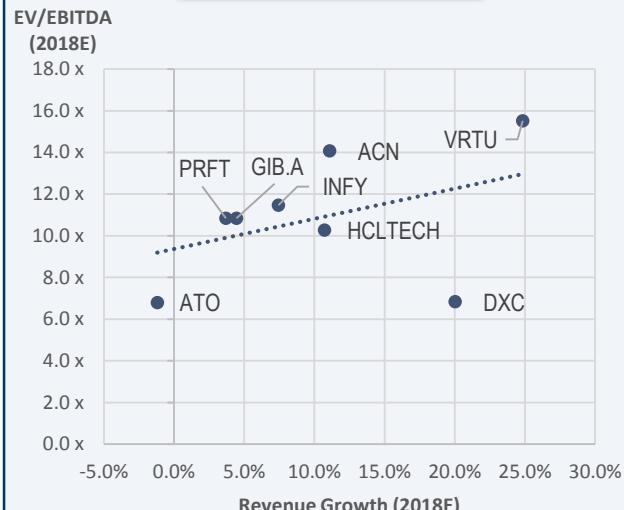
(1) As of close March 30, 2018.

‡ = 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



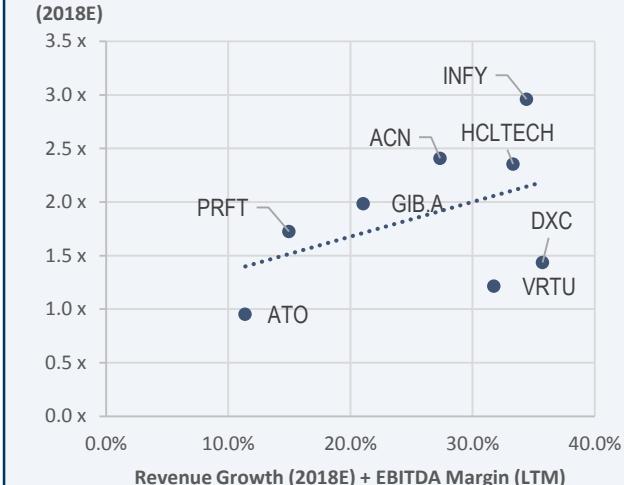
Select March 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
March 29			<ul style="list-style-type: none"> Digital consulting and implementation services
March 22			<ul style="list-style-type: none"> IT solutions and managed services
March 20			<ul style="list-style-type: none"> Provides IT consulting and implementation services (AWS channel partner)
March 15			<ul style="list-style-type: none"> Provides IT consulting services
March 1			<ul style="list-style-type: none"> Offers cloud consulting services

Source: CapitalIQ

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

EV/Revenue (2018E)



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)	\$50,302	\$13,732	\$14,673	42.7%	\$2,903	\$3,224	21.3%	4.0x	3.7x	3.4x	17.6 x	17.4 x	15.7 x
Genpact Limited (G)	\$6,189	\$2,967	\$3,202	38.5%	\$502	\$550	15.5%	2.5x	2.3x	2.2x	15.0 x	13.8 x	12.6 x
EPAM Systems, Inc. (EPAM)	\$6,074	\$1,817	\$2,205	36.5%	\$321	\$395	14.5%	3.8x	3.0x	2.5x	21.1 x	17.2 x	13.9 x
WNS (Holdings) Limited (WNS)	\$2,280	\$778	\$863	32.5%	\$176	\$202	12.8%	3.0x	2.8x	2.5x	17.9 x	12.3 x	10.8 x
Globant S.A. (GLOB)	\$1,814	\$504	\$604	36.4%	\$86	\$104	13.1%	4.3x	3.5x	2.9x	25.7 x	20.5 x	16.9 x
ExiService Holdings, Inc. (EXLS)	\$1,907	\$845	\$919	35.0%	\$149	\$168	14.6%	2.2x	2.0x	1.9x	12.7 x	11.4 x	10.1 x
Luxoft Holding, Inc. (LXFT)	\$1,385	\$995	\$1,139	37.5%	\$152	\$191	10.6%	1.5x	1.3x	1.2x	10.6 x	8.7 x	6.9 x
Mean	\$9,993	\$3,091	\$3,372	37.0%	\$613	\$691	14.6%	3.0x	2.7x	2.4x	17.2 x	14.5 x	12.4 x
Median	\$2,280	\$995	\$1,139	36.5%	\$176	\$202	14.5%	3.0x	2.8x	2.5x	17.6 x	13.8 x	12.6 x

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‡ = excluded from Mean and Median calculations

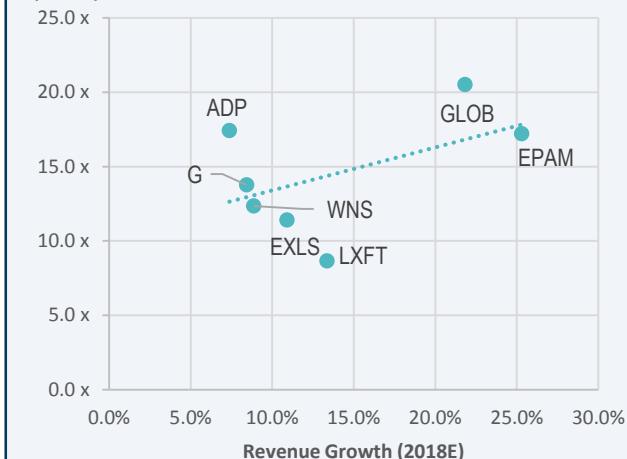
Source: Public Filings, Press Releases and Published Research Reports

(1) As of close March 30, 2018.

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

Relative Valuation

EV/EBITDA
(2018E)



Select March 2018 Precedent Transactions*

Announced

Acquirer

Target

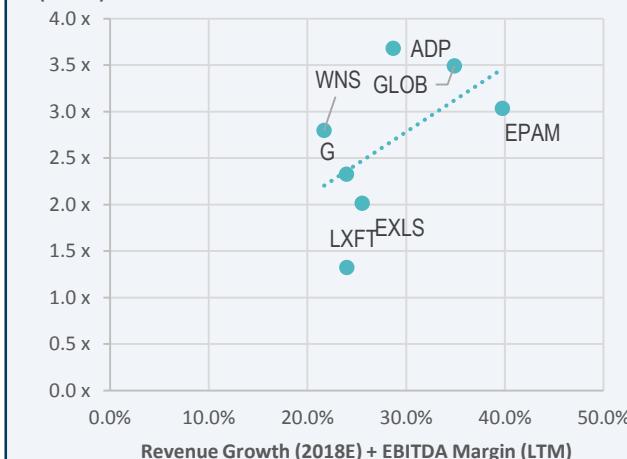
Description

March 20	 silvertech	 Bitwise Solutions people + technology = training + success	<ul style="list-style-type: none"> Offers outsourced web development and digital design services
March 20	 ascensus® Always have a plan	 CHARDNSNYDER® Benefit Solutions	<ul style="list-style-type: none"> Provides third party benefit solutions
March 19	 Rehmann Business wisdom delivered.	 trivalent group	<ul style="list-style-type: none"> Provides outsourced system and network solutions
March 12	 STRAIT LANE CAPITAL PARTNERS	 Arise	<ul style="list-style-type: none"> Tech-enabled staffing solutions leveraging a crowd sourcing model
March 8	 COMVEST PARTNERS	 Engage2Excel	<ul style="list-style-type: none"> Provides managed employee recognition programs through a Web-based solution

Source: CapitalIQ

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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)	\$33,128	\$5,043	\$5,581	49.8%	\$2,398	\$2,701	43.4%	9.6x	8.3x	7.5x	20.2 x	17.4 x	15.5 x
United InternetAG (UTDI)	\$12,600	\$6,365	\$6,672	36.1%	\$1,496	\$1,666	22.4%	2.9x	2.3x	2.2x	12.7 x	10.0 x	8.9 x
Zayo Group Holdings, Inc. (ZAYO)	\$8,474	\$2,651	\$2,764	63.9%	\$1,342	\$1,436	45.8%	5.6x	5.2x	5.0x	11.2 x	10.3 x	9.6 x
VeriSign, Inc. (VRSN)	\$11,515	\$1,208	\$1,252	83.4%	\$858	\$898	65.0%	9.9x	9.5x	9.2x	14.2 x	13.4 x	12.8 x
GoDaddy Inc. (GDDY)	\$9,014	\$2,601	\$2,899	65.3%	\$709	\$788	13.1%	5.0x	4.3x	3.8x	30.3 x	15.7 x	14.1 x
Wix.com Ltd. (WIX)	\$3,730	\$594	\$745	83.7%	\$106	\$159	-9.8%	8.2x	5.9x	4.7x	NM	33.0 x	21.9 x
Endurance International Group Holdings, Inc. (EIGI)	\$1,048	\$1,154	\$1,167	50.6%	\$319	\$334	24.0%	2.5x	2.5x	2.5x	8.4 x	9.1 x	8.7 x
Web.com Group, Inc. (WEB)	\$784	\$762	\$787	68.4%	\$193	\$206	20.0%	1.9x	1.9x	1.8x	8.2 x	7.4 x	6.9 x
Internap Corporation (INAP)	\$217	\$324	\$342	53.0%	\$111	\$119	27.7%	2.6x	2.3x	2.2x	9.1 x	6.7 x	6.2 x
Mean	\$8,946	\$2,300	\$2,468	61.6%	\$837	\$923	29.0%	5.3x	4.7x	4.3x	14.3 x	13.7 x	11.6 x
Median	\$8,474	\$1,208	\$1,252	63.9%	\$709	\$788	25.9%	5.0x	4.3x	3.8x	11.9 x	10.3 x	9.6 x

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

‡ = excluded from Mean and Median calculations

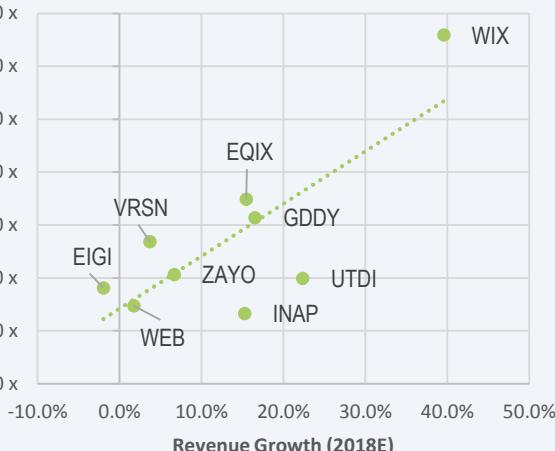
Source: Public Filings, Press Releases and Published Research Reports

(1) As of close March 30, 2018.

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

Relative Valuation

EV/EBITDA
(2018E)



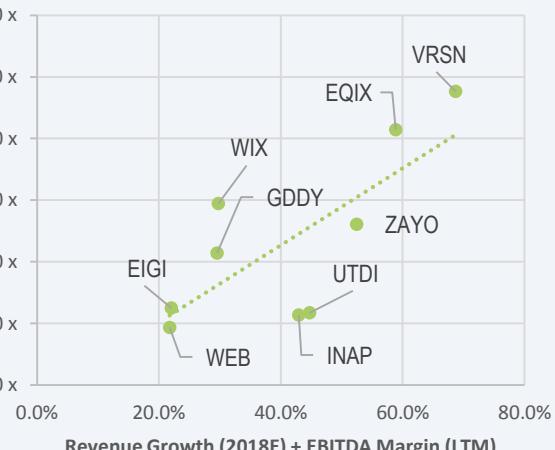
Select March 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
March 26	HIVE BLOCKCHAIN TECHNOLOGIES LTD.	Kolos	<ul style="list-style-type: none"> Provides cost efficient data centers
March 20	ATLANTIC DATA SECURITY	NETANIUM	<ul style="list-style-type: none"> Provides cloud security and infrastructure solutions
March 15	InterVision INNOVATION DELIVERED	bluelock.	<ul style="list-style-type: none"> Provides Disaster Recovery-as-a-Service (DRaaS) and cloud hosting solutions
March 12	gtt	ACI Accelerated Connections	<ul style="list-style-type: none"> Provides Internet protocol (IP) connectivity and public Internet services
March 6	brisio	namesilo domains. cheap, easy and secure.	<ul style="list-style-type: none"> Provides domain name registration and management services

Source: CapitalIQ

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

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		
		2018E	2019E		2018E	2019E		LTM	2018E	2019E	LTM	2018E	2019E
S&P Global Inc. (SPGI)	\$47,643	\$6,424	\$6,827	71.7%	\$3,183	\$3,409	48.3%	8.2x	7.8x	7.3x	16.4 x	15.7 x	14.6 x
Moody's Corporation (MCO)	\$30,826	\$4,703	\$4,989	70.9%	\$2,286	\$2,456	47.3%	8.4x	7.5x	7.1x	16.8 x	15.5 x	14.4 x
IQVIA Holdings Inc. (Q)	\$20,433	\$10,036	\$10,573	42.7%	\$2,200	\$2,384	21.1%	3.7x	3.0x	2.8x	16.6 x	13.6 x	12.5 x
IHS Markit Ltd. (INFO)	\$18,878	\$3,874	\$4,100	62.8%	\$1,523	\$1,657	31.5%	6.2x	5.9x	5.6x	16.3 x	15.1 x	13.9 x
Verisk Analytics, Inc. (VRSK)	\$17,162	\$2,361	\$2,525	63.5%	\$1,147	\$1,240	46.0%	9.3x	8.5x	7.9x	20.3 x	17.5 x	16.1 x
MSCI Inc. (MSCI)	\$13,434	\$1,432	\$1,564	78.5%	\$780	\$868	51.7%	11.5x	10.2x	9.3x	21.0 x	18.7 x	16.9 x
Gartner, Inc. (IT)	\$10,684	\$4,118	\$4,559	60.1%	\$769	\$864	11.5%	4.1x	3.3x	2.9x	29.1 x	17.5 x	15.5 x
FactSet Research Systems Inc. (FDS)	\$7,782	\$1,373	\$1,466	52.0%	\$463	\$498	32.8%	6.2x	5.9x	5.5x	17.4 x	17.5 x	16.3 x
Mean	\$20,855	\$4,290	\$4,575	62.8%	\$1,544	\$1,672	36.3%	7.2x	6.5x	6.1x	19.2 x	16.4x	15.0x
Median	\$18,020	\$3,996	\$4,329	63.1%	\$1,335	\$1,449	39.4%	7.2x	6.7x	6.4x	17.1 x	16.6x	15.1x

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

(1) As of close March 30, 2018.

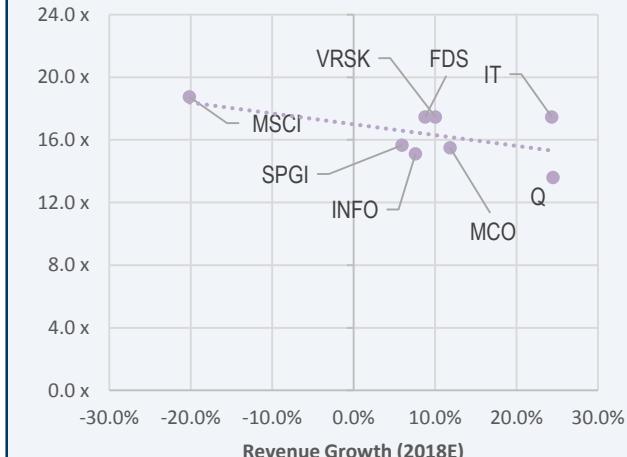
‡ = excluded from Mean and Median calculations

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

Source: Public Filings, Press Releases and Published Research Reports

Relative Valuation

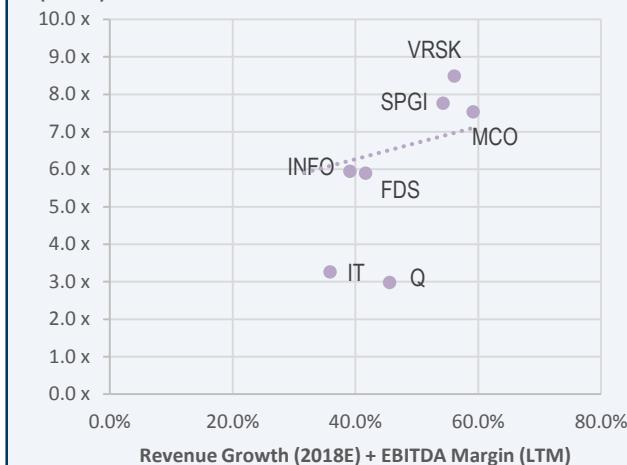
EV/EBITDA
(2018E)



Select March 2018 Precedent Transactions*

Announced	Acquirer	Target	Description
March 22			<ul style="list-style-type: none"> Offers predictive analytics-based strategic consulting
March 21			<ul style="list-style-type: none"> Research and consulting services to governments and non-profits
March 13		(nka Glantus US)	<ul style="list-style-type: none"> Provides data science analytics and consultancy services
March 6			<ul style="list-style-type: none"> Big data analytics and social media consulting
March 1			<ul style="list-style-type: none"> Subscription-based market forecast research reports

EV/Revenue
(2018E)



Source: CapitalIQ

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

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)	\$19,291	\$5,536	\$6,001	85.1%	\$1,737	\$1,914	27.1%	3.8x	3.4x	3.2x	13.0 x	10.9 x	9.9 x
Veeva Systems Inc. (VEEV)	\$10,397	\$819	\$964	69.2%	\$266	\$317	24.1%	14.1x	11.8x	10.0x	44.0 x	36.2 x	30.4 x
athenahealth, Inc. (ATHN)	\$5,735	\$1,350	\$1,501	53.1%	\$353	\$408	13.5%	4.8x	4.3x	3.9x	26.3 x	16.6 x	14.3 x
Allscripts Healthcare Solutions, Inc. (MDRX)	\$2,234	\$2,194	\$2,314	49.6%	\$437	\$473	8.4%	2.3x	1.9x	1.8x	21.4 x	9.4 x	8.7 x
Inovalon Holdings, Inc. (INOV)	\$1,531	\$576	\$647	66.4%	\$168	\$199	16.9%	2.9x	2.3x	2.0x	14.0 x	7.8 x	6.6 x
Quality Systems, Inc. (QSII)	\$870	\$537	\$555	55.4%	\$81	\$85	9.7%	1.7x	1.6x	1.6x	14.3 x	11.0 x	10.4 x
National Research Corporation (NRCI.B)	\$790	\$128	NA	58.3%	\$43	NA	33.0%	6.4x	5.9x	NM	18.6 x	17.7 x	NM
HealthStream, Inc. (HSTM)	\$796	\$229	\$239	57.2%	\$39	\$43	10.5%	2.7x	2.9x	2.8x	23.9 x	17.0 x	15.4 x
Computer Programs and Systems, Inc. (CPSI)	\$402	\$288	\$299	54.6%	\$48	\$49	11.9%	2.0x	1.9x	1.8x	13.5 x	11.3 x	11.1 x
Castlight Health, Inc. (CSLT)	\$494	\$153	\$181	64.1%	(\$11)	\$8	-41.8%	3.1x	2.6x	2.2x	NM	NM	NM
Mean	\$4,254	\$1,181	\$1,411	61.3%	\$316	\$388	11.3%	4.4x	3.9x	3.3x	21.0 x	15.3 x	13.4x
Median	\$1,200	\$557	\$647	57.7%	\$124	\$199	12.7%	3.0x	2.8x	2.2x	18.6 x	11.3 x	10.7x

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

(1) As of close March 30, 2018.

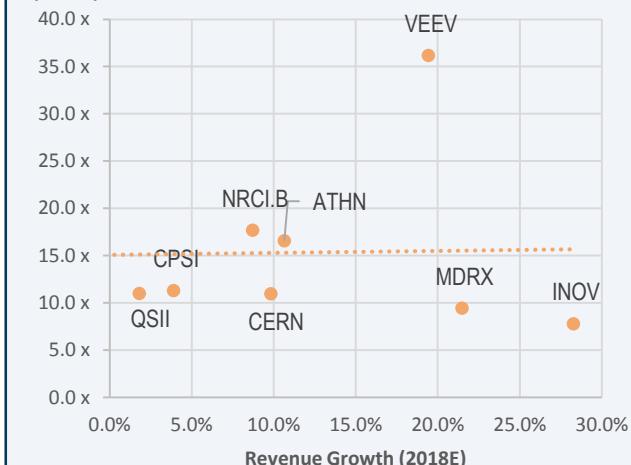
‡ = excluded from Mean and Median calculations

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

Source: Public Filings, Press Releases and Published Research Reports

Relative Valuation**

EV/EBITDA
(2018E)



Select March 2018 Precedent Transactions*

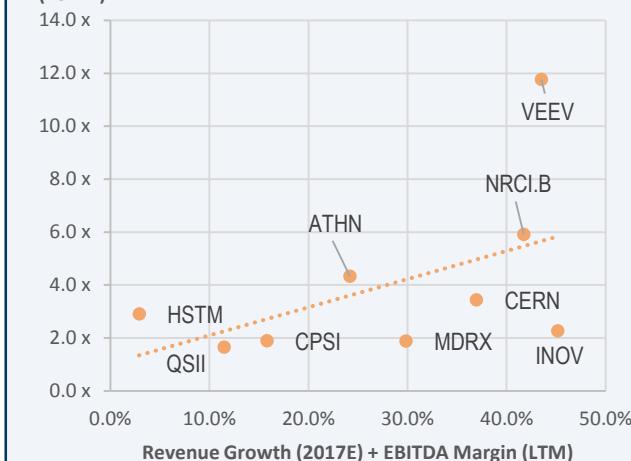
Announced	Acquirer	Target	Description
March 30	genae	hilbert paradox	Develops and operates a digital health management platform
March 21	Cantel Medical	AEXIS	Develops software solutions for tracking and monitoring medical workflows
March 21	accrue	connectiv	Develops digital healthcare technology management tools
March 7	inovalon	ABILITY	Provides web-based solutions for healthcare providers
March 1	SSI	ICA THE INTEROPERABILITY EXPERTS	Provides a health information exchange and care management solution

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

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