



# Mufson Howe Hunter

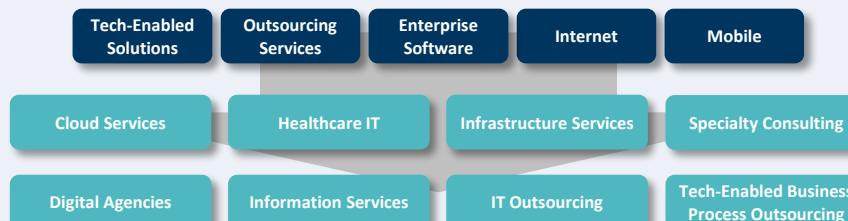
INVESTMENT BANKERS FOR GROWTH

*TECHNOLOGY SERVICES MONTHLY*  
*Robotic Process Automation (“RPA”)*

*July 2018*

## Welcome to the MHH Technology Services Newsletter!

Welcome to the July edition of the Mufson Howe Hunter Technology Services Monthly. This month, we highlight key themes and growth drivers in the Robotic Process Automation 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...



- [The next acronym you need to know about: RPA \(robotic process automation\)](#)
- [The Internet of Things You Don't Really Need](#)
- [The Truth About Blockchain](#)
- [Health Catalyst launches new hospital safety surveillance analytics](#)

### 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](mailto:beck@mhhco.com)

**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](mailto: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)

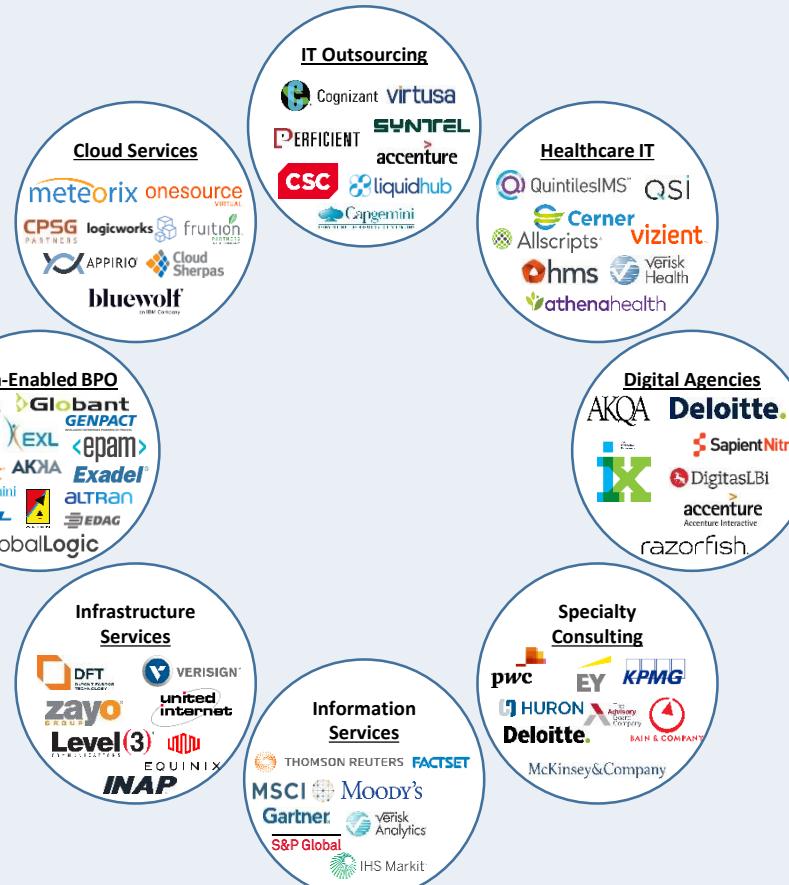
8+ Years of  
Experience

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

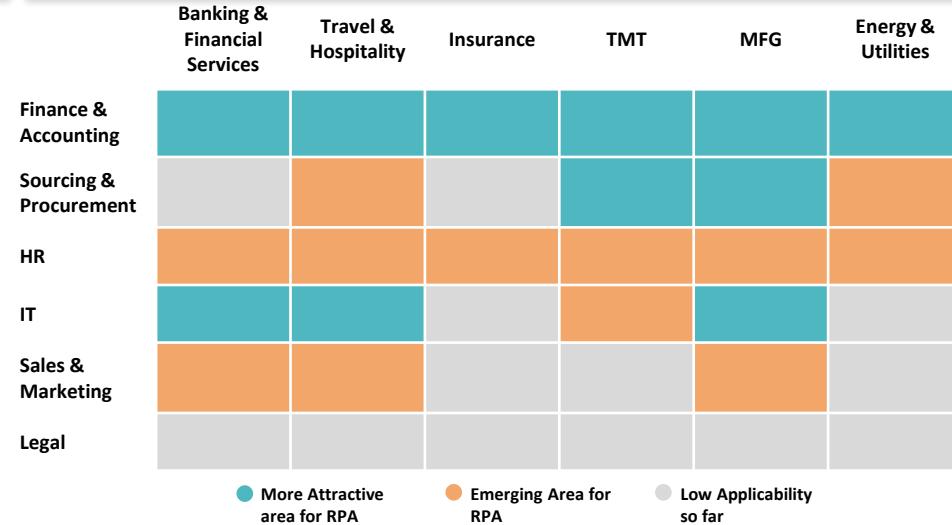
Mobile

# ROBOTIC PROCESS AUTOMATION

## What is Robotic Process Automation?

- **Robotic Process Automation (RPA)** refers to the application of technology governed by business logic and structured inputs in order to automate various business processes. Using RPA tools, a company can configure software, or “robots”, to capture and interpret transactions, manipulate data and communicate with other digital systems.<sup>1</sup>
- There are three classes of RPA technology:
  - **Rules-based automation:** Macros, screen scraping and business workflow technologies in the presentation layer (**10% - 20%** estimated cost saving).<sup>2</sup>
  - **Enhanced and intelligent process automation:** Technologies using natural language processing; able to understand unstructured data (**35% - 60%** estimated cost saving).<sup>3</sup>
  - **Cognitive platforms:** Cognitive computing systems attempt to solve problems by learning from experience and acting on that learning (**>60%** estimated cost saving).<sup>4</sup>
- Total global expenditures on RPA technology is expected to reach **\$5.0 billion** by 2020, achieving a **60.5% CAGR** from 2013 to 2020.<sup>5</sup>

## Application Across Industries<sup>8</sup>

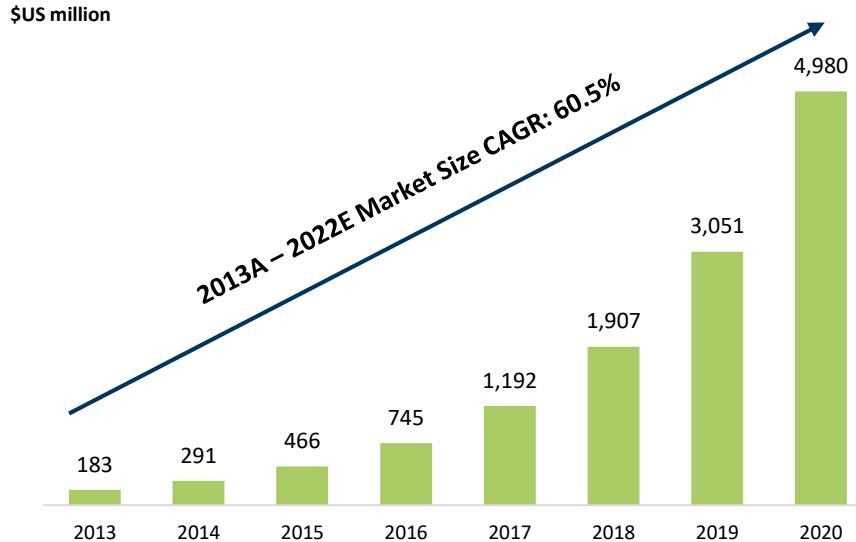


## Robotic Automated Processing Value Propositions

Operational efficiencies and cost benefits derived from RPA include:

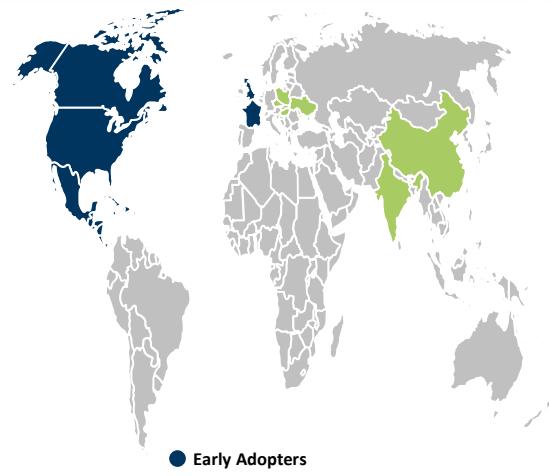
- **Decreased operational costs:** Whereas U.S. multinationals have hired 2.4 million offshore employees, RPA has proven to cut offshore FTE to half.<sup>6</sup>
- **Data analytics capability:** As work processes are tightly managed and tracked, companies will be able to track gaps for incremental optimization and improve decision-making.
- **Improved regulatory compliance:** A fully RPA automated process would enable adopters to track every step of the process and document systematically.
- **Increased efficiency:** Software robots do not require time off. Typically, a single software robot can replace between two to five FTEs.<sup>7</sup>
- **Increased employee productivity (flexibility & multi-tasking):** Employees can focus more on value-added tasks.
- **Reduced error rate and delivery risk:** Software robots eliminate processing errors.
- **Logistics advantages:** RPA eliminates challenges associated with working in different time zones.

## Global Expenditures on RPA Technology<sup>9</sup>



# *ROBOTIC PROCESS AUTOMATION*

## Adoption by Geographical Location <sup>1</sup>



Note: Approximately 68% RPA customers are based in North America and the UK.

<sup>1,2</sup> Robotic process automation primer June 2015, IRPA

## Function Application <sup>2</sup>

IT

## Installation (e.g. Single click installation of complex system)

 **Email Related**  
(e.g. Open e-mail attachment  
and complete e-forms)

## Finance

## Procure-to-Pay

(e.g. Extract invoice and payment data from ERP)

## Supply Chain

## Work-Order Mgmt.

*(e.g. Automatically update work order)*

Freight Mgmt.  
*(e.g. Identify docs, process letter and invoices)*

## Sales/Marketing



## Vendor Mgmt.

(e.g. Automatically update vendor records)

## Human Resource

**Payroll**  
*(e.g. Streamline processes and reduce repetitive tasks)*



## On-boarding

(e.g. Automate new-hire paperwork, IT set-up, etc.)

Legal

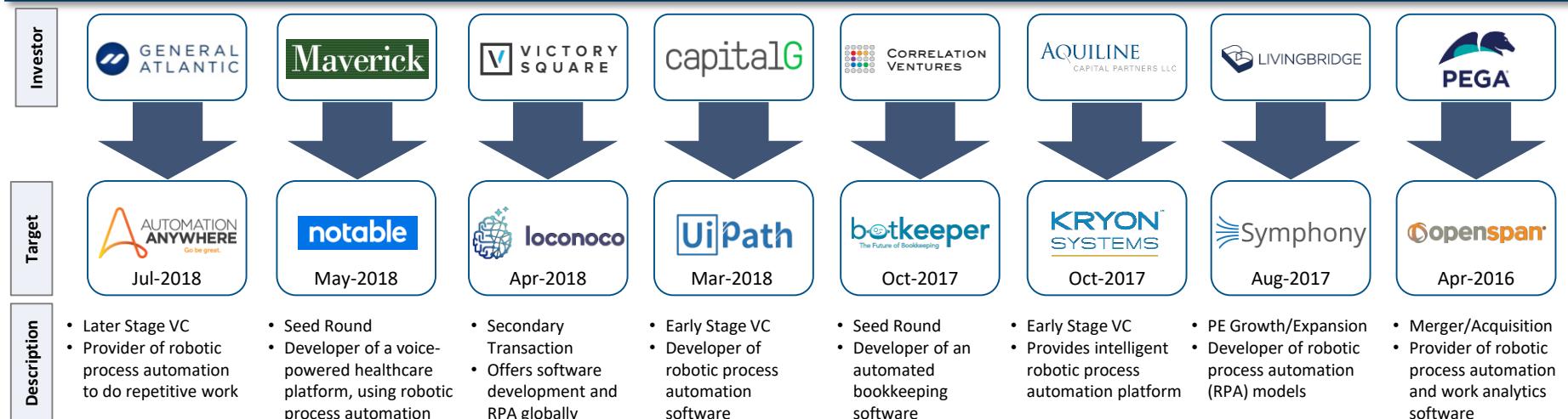


## Payment Processing

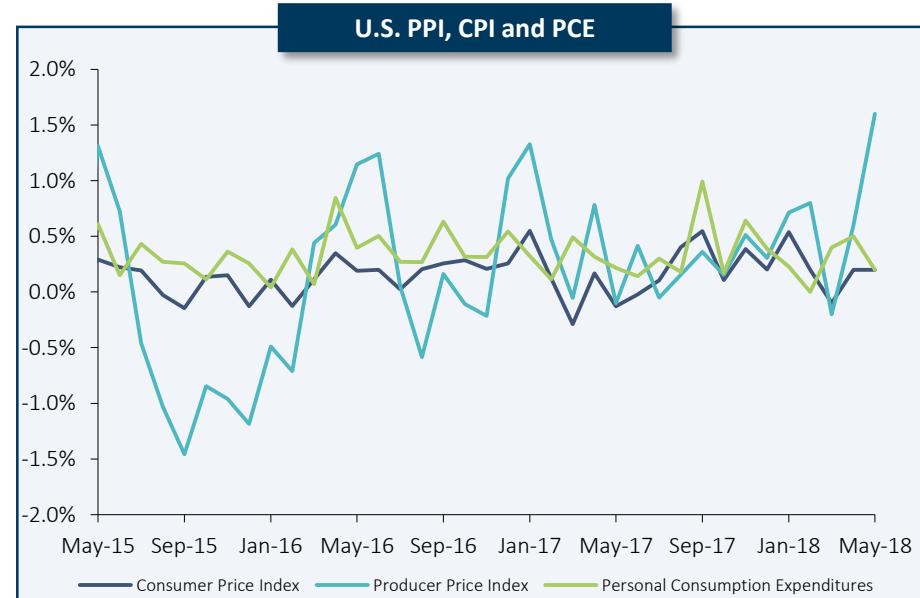
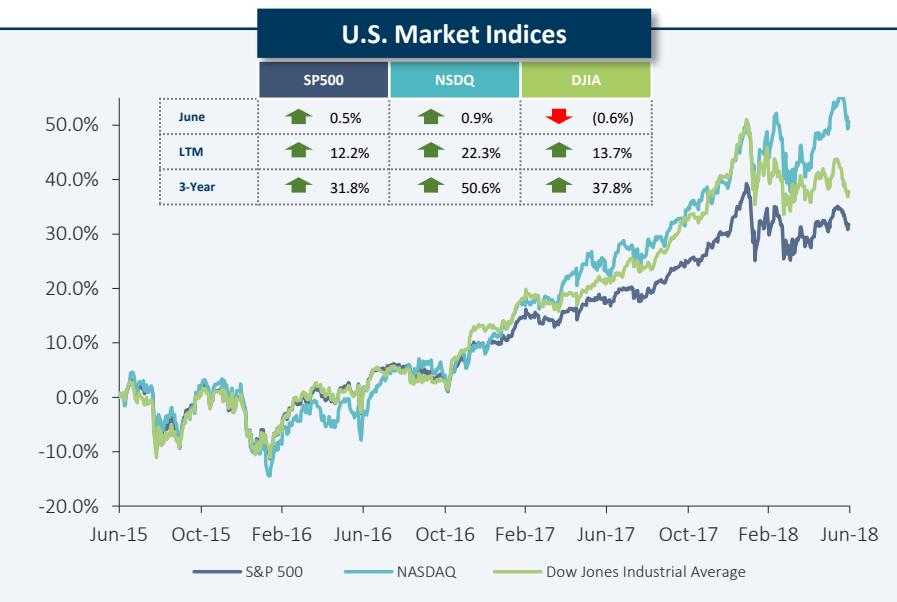
(e.g. Automate periodic payments)

**Appeal**  
(e.g. *Automate compliance applications for insurance policies*)

## Recent Relevant Investments



# U.S. ECONOMIC INDICATORS



Sources: CapitalIQ, Federal Reserve Bank of St. Louis

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

## Select Jun. 2018 Buy-Outs\*\*

Company	Investor	Date	Sector
riskinternational	bv INVESTMENT PARTNERS SINCE 1981	June 28	IT Outsourcing
morpace	STG STRATEGIC TECHNOLOGY GROUP	June 26	Information Services
iMANAGED solutions	BLUFFPOINT ASSOCIATES NETGAIN SYSTEMS PARTNERS	June 25	Healthcare IT
SWERDLIN & COMPANY	ascensus GENSTAR	June 19	Business Process Outsourcing
BetterDoctor	Quest Analytics VCP	June 18	Healthcare IT
PALADINA HEALTH	NEA New Enterprise Associates	June 6	Healthcare IT

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



## PE Buy-Outs, by Deal Size



## PE Buy-Outs, Historical Annual, as of Jun. 30



Source: Pitchbook

\*For deals with announced transaction value

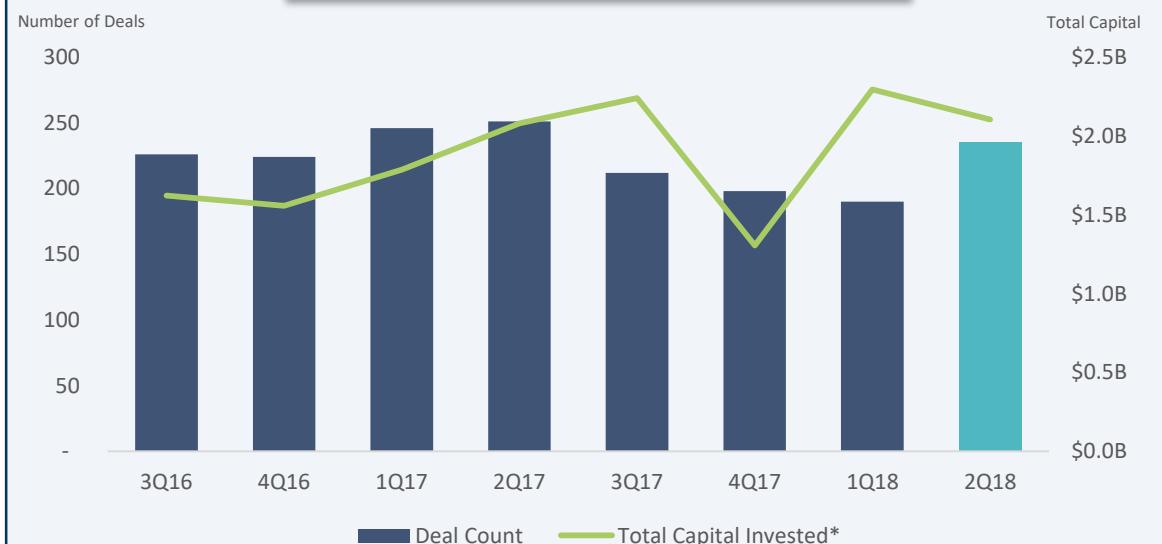
\*\*Please contact the MHH Technology Services Group directly for any information regarding valuation and deal size

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

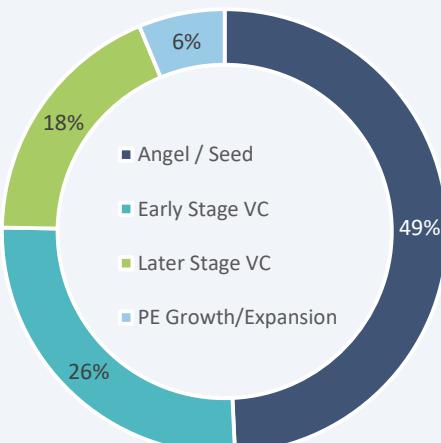
## Select Jun. 2018 Minority Deals\*\*

Company	Stage	Date	Sector
 fasetto	Angel	June 27	Infrastructure Services
 relevant medsystems	Late Stage VC	June 26	Healthcare IT
 Cedar Healthcare	Early Stage VC	June 25	Healthcare IT
 CROWDSTRIKE	Late Stage VC	June 21	IT Outsourcing
 emulate	Late Stage VC	June 19	Healthcare IT
 WindMIL THERAPEUTICS	Early Stage VC	June 18	Healthcare IT

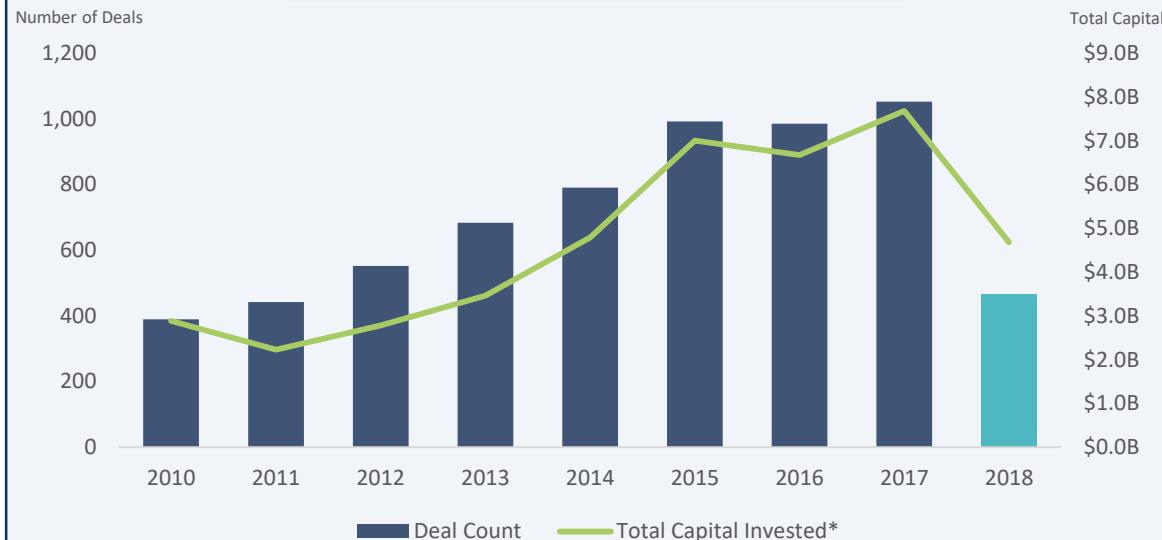
## PE Minority, Trailing 8 Quarters, as of Jun. 30



## PE Minority, by Stage



## PE Minority, Historical Annual, as of Jun. 30



Source: Pitchbook

\*For deals with announced transaction value

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

# VALUATION & PERFORMANCE METRICS

ITO

**IT Outsourcing:** technology services and consulting solutions, including engineering, application development, knowledge management and business process management

BPO

**Business Process Outsourcing:** services for administering and managing select technology-enabled business processes, including outsourced product development, finance and accounting, human resources, research and analytics, and other industry-specific processes

IFS

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

IS

**Information Services:** providers of independent rating, benchmarking, research and data analytic services

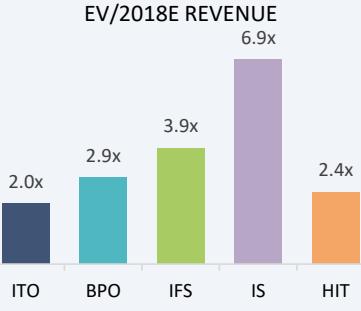
HIT

**Healthcare IT:** software and technology-related services focused on the design, development, creation, use and maintenance of information systems for the healthcare industry

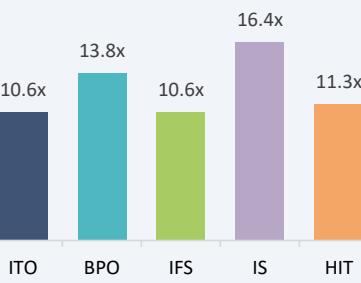
## Sector Indices Performance, as of Jun. 30, 2018



## Median Valuation Metrics

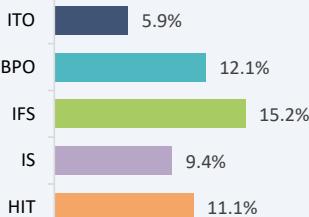


## EV/2018E EBITDA

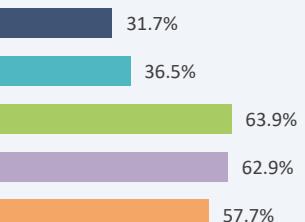


## Median Operational KPIs

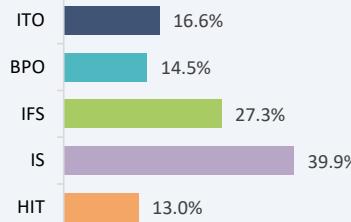
### 2018E REVENUE GROWTH



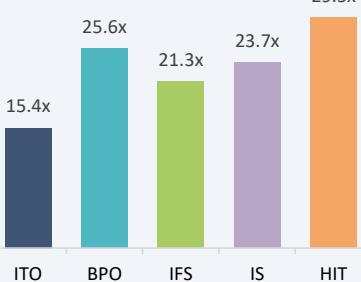
### LTM GROSS MARGIN



### LTM EBITDA MARGIN



### FWD PRICE/EARNINGS



Source: CapitalIQ

# IT OUTSOURCING

## Valuation Metrics

Company	Market Cap <sup>(1)</sup>	Operating Metrics						Valuation Multiples					
		Revenue		LTM Gross Margin	EBITDA <sup>(2)</sup>		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 June 29, 2018.

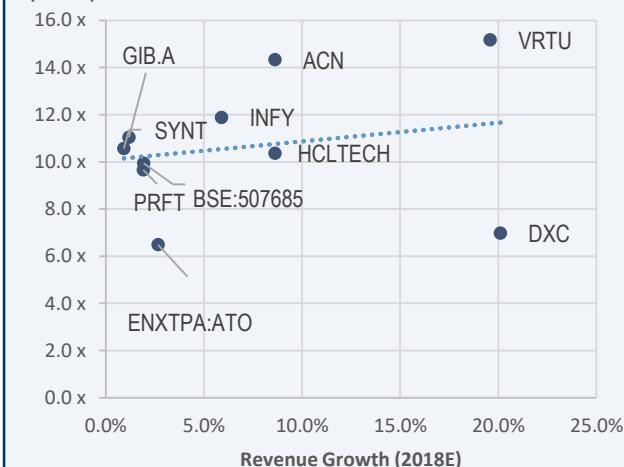
‡ = excluded from Mean and Median calculations

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

Source: Public Filings, Press Releases and Published Research Reports

## Relative Valuation

### EV/EBITDA (2018E)



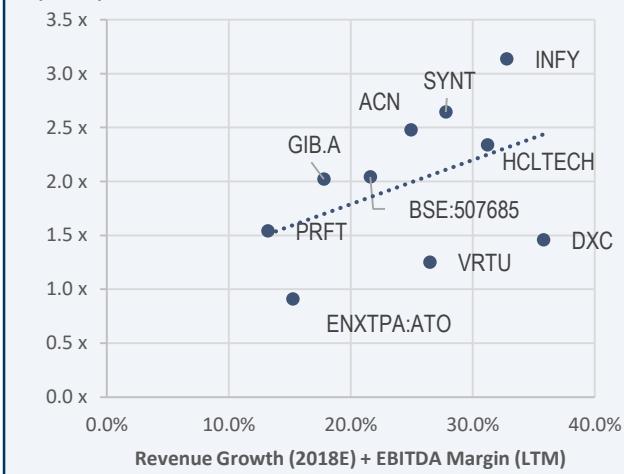
## Select Jun. 2018 Precedent Transactions\*

Announced	Acquirer	Target	Description
June 27			<ul style="list-style-type: none"> <li>Provides process and organizational consulting services</li> </ul>
June 26			<ul style="list-style-type: none"> <li>Offers AI-based cyber security solutions</li> </ul>
June 18			<ul style="list-style-type: none"> <li>Provides cyber security consultancy services</li> </ul>
June 18	ACCSCIENT		<ul style="list-style-type: none"> <li>Offers Internet Technology solutions</li> </ul>
June 8			<ul style="list-style-type: none"> <li>Provides design consultancy services</li> </ul>

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

Company	Market Cap <sup>(1)</sup>	Operating Metrics					Valuation Multiples							
		Revenue		LTM Gross Margin	EBITDA <sup>(2)</sup>		LTM EBITDA Margin	EV / Revenue			EV / EBITDA			
		2018E	2019E		2018E	2019E		LTM	2018E	2019E	LTM	2018E	2019E	
Automatic Data Processing, Inc. (ADP)	\$52,341	\$13,723	\$14,555	42.8%	\$2,956	\$3,218	21.3%	4.0x	3.8x	3.6x	17.9 x	17.8 x	16.3 x	
Genpact Limited (G)	\$6,126	\$2,975	\$3,210	37.8%	\$494	\$542	14.9%	2.4x	2.3x	2.1x	15.0 x	13.8 x	12.6 x	
EPAM Systems, Inc. (EPAM)	\$6,100	\$1,847	\$2,243	36.0%	\$326	\$405	14.5%	3.6x	3.0x	2.5x	20.0 x	17.0 x	13.7 x	
WNS (Holdings) Limited (WNS)	\$2,468	\$801	\$885	33.6%	\$172	\$204	14.5%	3.1x	2.9x	2.6x	16.7 x	13.6 x	11.5 x	
ExiService Holdings, Inc. (EXLS)	\$1,997	\$847	\$919	34.5%	\$150	\$167	14.4%	2.3x	2.1x	2.0x	13.3 x	11.9 x	10.7 x	
Globant S.A. (GLOB)	\$1,636	\$508	\$608	36.5%	\$86	\$104	13.6%	3.6x	3.1x	2.6x	20.5 x	18.4 x	15.2 x	
Luxoft Holding, Inc. (LXFT)	\$1,364	\$995	\$1,139	37.5%	\$152	\$191	10.6%	1.5x	1.3x	1.1x	10.5 x	8.5 x	6.8 x	
Mean		\$10,290	\$3,099	\$3,365	37.0%	\$620	\$690	14.8%	2.9x	2.7x	2.4x	16.3 x	14.4 x	12.4 x
Median		\$2,468	\$995	\$1,139	36.5%	\$172	\$204	14.5%	3.1x	2.9x	2.5x	16.7 x	13.8 x	12.6 x

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

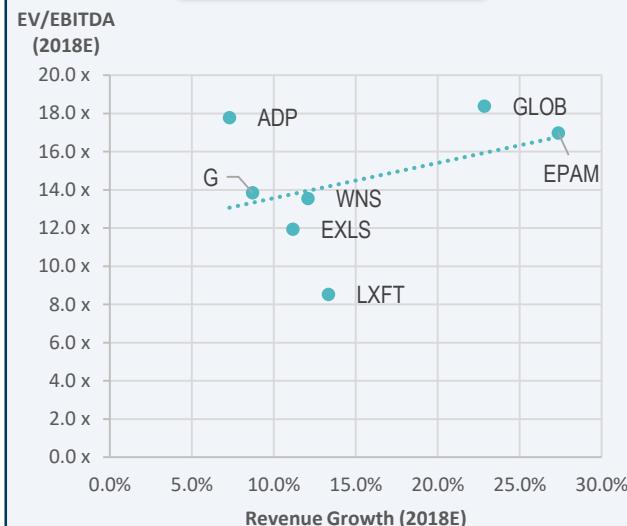
‡ = excluded from Mean and Median calculations

Source: Public Filings, Press Releases and Published Research Reports

(1) As of close June 29, 2018.

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

## Relative Valuation



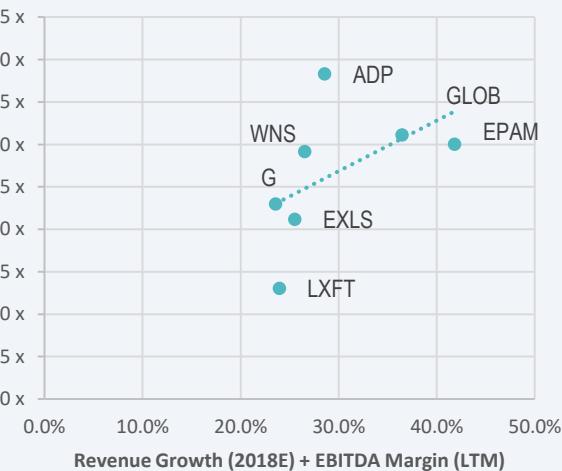
## Select Jun. 2018 Precedent Transactions\*

Announced	Acquirer	Target	Description
June 28			<ul style="list-style-type: none"> <li>Develops websites and design brands</li> </ul>
June 26			<ul style="list-style-type: none"> <li>Provides managed and cloud services</li> </ul>
June 20			<ul style="list-style-type: none"> <li>Operates certification and licensure testing company</li> </ul>
June 18			<ul style="list-style-type: none"> <li>Provides fulfillment and procurement solutions</li> </ul>
June 11			<ul style="list-style-type: none"> <li>Develops cloud-based drug safety analytics platform</li> </ul>

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

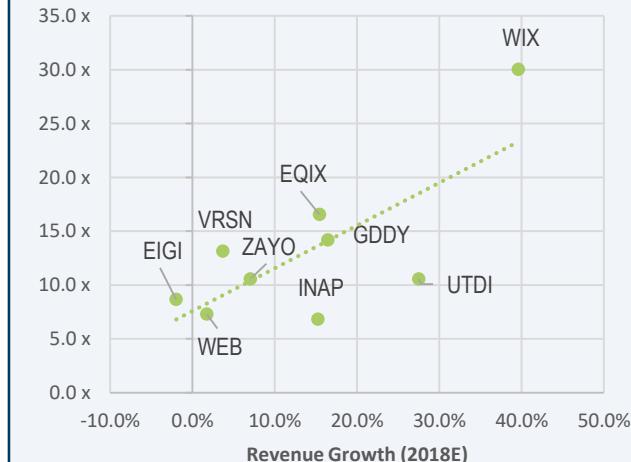
Company	Market Cap <sup>(1)</sup>	Operating Metrics					Valuation Multiples				
		Revenue		LTM Gross Margin	EBITDA <sup>(2)</sup>		LTM EBITDA Margin	EV / Revenue		EV / EBITDA	
		2018E	2019E		2018E	2019E		LTM	2018E	2019E	LTM
Equinix, Inc. (EQIX)	\$31,065	\$5,043	\$5,556	49.8%	\$2,399	\$2,694	43.4%	9.1x	7.9x	7.2x	19.2 x
United Internet AG (UTDI)	\$13,611	\$6,223	\$6,630	35.3%	\$1,510	\$1,687	22.0%	3.3x	2.6x	2.4x	14.8 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
VeriSign, Inc. (VRSN)	\$11,268	\$1,208	\$1,252	83.4%	\$858	\$898	65.0%	9.7x	9.3x	9.0x	13.9 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
Wix.com Ltd. (WIX)	\$3,412	\$594	\$743	83.7%	\$106	\$166	-10.4%	7.5x	5.4x	4.3x	NM
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
Web.com Group, Inc. (WEB)	\$770	\$762	\$791	68.4%	\$192	\$208	20.0%	1.9x	1.8x	1.8x	8.7 x
Internap Corporation (INAP)	\$257	\$324	\$342	53.0%	\$111	\$119	30.6%	2.7x	2.3x	2.2x	8.5 x
Mean	\$8,702	\$2,285	\$2,459	61.5%	\$841	\$931	29.2%	5.2x	4.6x	4.2x	14.0 x
Median	\$8,011	\$1,208	\$1,252	63.9%	\$714	\$825	27.3%	4.5x	3.9x	3.5x	12.7 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 June 29, 2018.

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

## Relative Valuation

### EV/EBITDA (2018E)



## Select Jun. 2018 Precedent Transactions\*

Announced	Acquirer	Target	Description
June 27	WPengine	STUDIOPRESS	▪ Develops WordPress suites
June 11	workday.	Adaptive Insights	▪ Offers corporate performance management and business intelligence solutions
June 6	IRIDEOS	Enter	▪ Operates as an internet service provider
June 4	Microsoft	Github	▪ Provides code hosting services
June 1	box	PROGRESSLY	▪ Develops central platform for business process

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 <sup>(1)</sup>	Operating Metrics					Valuation Multiples						
		Revenue		LTM Gross Margin		EBITDA <sup>(2)</sup>		LTM EBITDA Margin		EV / Revenue		EV / EBITDA	
		2018E	2019E	2018E	2019E	2018E	2019E	LTM	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 June 29, 2018.

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

## Relative Valuation



## Select Jun. 2018 Precedent Transactions\*

Announced	Acquirer	Target	Description
June 21	<b>Gentrack</b>	 A GENTRACK PRODUCT	<ul style="list-style-type: none"> <li>Provides data analytics services</li> </ul>
June 19	<b>Deloitte</b>		<ul style="list-style-type: none"> <li>Provides risk consulting services</li> </ul>
June 15	<b>IBM</b>	<b>ONIQUA</b> ANALYTICS SOLUTION	<ul style="list-style-type: none"> <li>Provides asset performance management solutions</li> </ul>
June 12	<b>software AG</b>		<ul style="list-style-type: none"> <li>Develops data search and mining software solutions</li> </ul>
June 5	<b>MERCER</b>	<b>EVOLVE</b>	<ul style="list-style-type: none"> <li>Provides research and intelligence services</li> </ul>

Source: CapitalIQ

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

## EV/Revenue (2018E)



# HEALTHCARE IT

## Valuation Metrics

Company	Market Cap <sup>(1)</sup>	Operating Metrics					Valuation Multiples						
		Revenue		LTM Gross Margin	EBITDA <sup>(2)</sup>		EV / Revenue			EV / EBITDA			
		2018E	2019E		2018E	2019E	LTM	2018E	2019E	LTM	2018E	2019E	
Cerner Corporation (CERN)	\$19,324	\$5,369	\$5,830	84.5%	\$1,626	\$1,783	26.2%	3.8x	3.5x	3.3x	13.4 x	11.7 x	10.7 x
Veeva Systems Inc. (VEEV)	\$9,986	\$819	\$964	69.2%	\$266	\$317	24.1%	13.5x	11.3x	9.6x	42.1 x	34.6 x	29.1 x
athenahealth, Inc. (ATHN)	\$4,949	\$1,356	\$1,490	54.1%	\$374	\$428	16.8%	4.0x	3.7x	3.4x	18.9 x	13.6 x	11.9 x
Allscripts Healthcare Solutions, Inc. (MDRX)	\$2,068	\$2,178	\$2,289	49.6%	\$433	\$469	7.6%	2.1x	1.8x	1.7x	20.9 x	9.1 x	8.5 x
Inovalon Holdings, Inc. (INOV)	\$1,450	\$566	\$639	66.3%	\$161	\$192	12.8%	2.8x	2.2x	1.9x	16.7 x	7.6 x	6.4 x
Quality Systems, Inc. (QSII)	\$856	\$538	\$556	55.4%	\$81	\$85	9.7%	1.7x	1.6x	1.6x	14.1 x	10.8 x	10.2 x
National Research Corporation (NRC)	\$686	NA	NA	58.2%	NA	NA	32.1%	5.5x	NM	NM	16.4 x	NM	NM
HealthStream, Inc. (HSTM)	\$749	\$229	\$239	57.3%	\$39	\$43	11.0%	2.2x	2.4x	2.3x	18.8 x	14.1 x	12.9 x
Computer Programs and Systems, Inc. (CPSI)	\$411	\$291	\$300	55.6%	\$52	\$52	13.1%	1.9x	1.9x	1.8x	12.3 x	10.5 x	10.7 x
Caslight Health, Inc. (CSLT)	\$509	\$154	\$181	61.4%	(\$14)	\$7	-38.1%	3.0x	2.7x	2.3x	NM	NM	NM
<b>Mean</b>	<b>\$4,099</b>	<b>\$1,278</b>	<b>\$1,388</b>	<b>61.2%</b>	<b>\$335</b>	<b>\$375</b>	<b>11.5%</b>	<b>4.0x</b>	<b>3.5x</b>	<b>3.1x</b>	<b>19.3 x</b>	<b>14.0 x</b>	<b>12.5x</b>
<b>Median</b>	<b>\$1,153</b>	<b>\$566</b>	<b>\$639</b>	<b>57.7%</b>	<b>\$161</b>	<b>\$192</b>	<b>13.0%</b>	<b>2.9x</b>	<b>2.4x</b>	<b>2.3x</b>	<b>16.7 x</b>	<b>11.3x</b>	<b>10.7x</b>

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

(1) As of close June 29, 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 Jun. 2018 Precedent Transactions\*

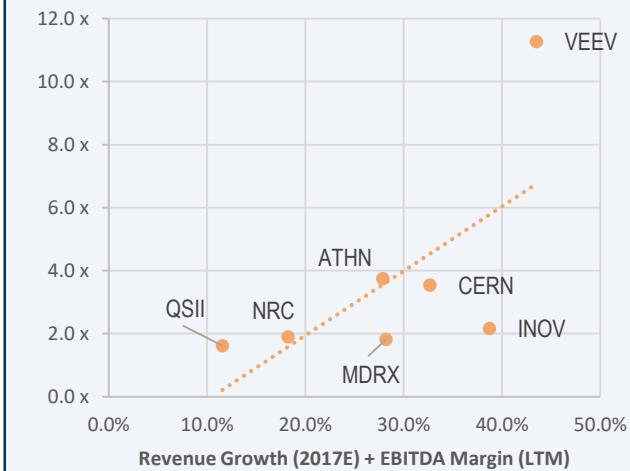
Announced	Acquirer	Target	Description
June 19			<ul style="list-style-type: none"> <li>Provides payment solutions for healthcare sector</li> </ul>
June 13			<ul style="list-style-type: none"> <li>Provides population health management solutions</li> </ul>
June 12			<ul style="list-style-type: none"> <li>Provides cloud-based data and analytics solutions to the life sciences industry</li> </ul>
June 11			<ul style="list-style-type: none"> <li>Offers information systems consulting for healthcare providers</li> </ul>
June 4			<ul style="list-style-type: none"> <li>Develops data and analytics software for eye care professionals</li> </ul>

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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