



HOULIHAN LOKEY

HEALTHCARE TECHNOLOGY

MARKET UPDATE | WINTER 2019



Houlihan Lokey Healthcare Technology Market Update

Dear Clients and Friends,

Houlihan Lokey is pleased to present its Healthcare Technology Market Update for the first quarter of this year.

We have included important news stories, transaction announcements, a public markets overview, and industry insights to help you stay ahead in our dynamic and constantly evolving industry. We hope you find this quarterly update to be informative and that it serves as a valuable resource to you in staying abreast of the market. If there is additional content you would find useful for future updates, please don't hesitate to call or email us with your suggestions. We look forward to staying in touch with you.

Regards,



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Healthcare Technology Verticals Covered

REVENUE CYCLE MANAGEMENT

CARE DELIVERY

WORKFORCE MANAGEMENT

PATIENT-FACING SOLUTIONS

PAYMENT INTEGRITY

PHARMA IT SOLUTIONS

POPULATION HEALTH & RISK MANAGEMENT

PATIENT ACCESS

HLI
LISTED
NYSE

Houlihan Lokey is the trusted advisor to more top decision-makers than any other independent global investment bank.

Houlihan Lokey's Healthcare Group is the Leading Advisor to Healthcare Companies

**2018 M&A Advisory Rankings
All U.S. Healthcare Transactions**

Advisor	Deals
1 Houlihan Lokey	36
2 JP Morgan	23
3 KeyBanc Capital Markets Inc	19
4 Piper Jaffray Cos	15
4 The Braff Group	15
4 Jefferies LLC	15

Source: Thomson Reuters

**2017 M&A Advisory Rankings
U.S. Healthcare Transactions Under
\$1 Billion**

Advisor	Deals
1 Houlihan Lokey	21
2 Piper Jaffray Cos	19
3 JP Morgan	16
3 Jefferies LLC	16
5 Cain Brothers Co.	13

Source: Thomson Reuters

**2016 M&A Advisory Rankings
All U.S. Healthcare Transactions**

Advisor	Deals
1 Houlihan Lokey	41
2 Jefferies LLC	30
3 JP Morgan	26
4 Evercore Partners	14
4 Barclays	14
4 Piper Jaffray Cos	14

Source: Thomson Reuters

Exceptional Qualifications in Healthcare Technology and Tech-Enabled Services

24
CLOSED
TRANSACTIONS
SINCE JAN. 1, 2015

~\$210 million
AVERAGE
TRANSACTION SIZE
SINCE JAN. 1, 2016

90+%
DEALS CLOSED IN OR
ABOVE PITCH RANGE
SINCE JAN. 1, 2016

~30%
TRANSACTIONS SOLD
TO A STRATEGIC
SINCE JAN. 1, 2016

~70%
OF DEALS SOLD TO A
FINANCIAL SPONSOR
SINCE JAN. 1, 2016

2018					
 HEALTHCARE SOLUTIONS Forward Thinking has been acquired by SELLSIDE ADVISOR	 a portfolio company of has been acquired by SELLSIDE ADVISOR	OneContent™ a content management software asset of has been acquired by a portfolio company of FINANCIAL ADVISOR	 has been acquired by SELLSIDE ADVISOR	 has been acquired by SELLSIDE ADVISOR	 has divested its Commercial Health Insurance Payer Products Business to a portfolio company of SELLSIDE ADVISOR
2017					
 has partnered with and made an equity investment in BUYSIDE ADVISOR	The Connect business unit of has been acquired by SELLSIDE ADVISOR	 has completed a tender offer FAIRNESS OPINION	 the healthcare software assets of have been acquired by SELLSIDE ADVISOR	 a portfolio company of has been acquired by SELLSIDE ADVISOR	 has been acquired by SELLSIDE ADVISOR
2016					
 a portfolio company of has been acquired by SELLSIDE ADVISOR	 a portfolio company of has been acquired by a MEDNAX company SELLSIDE ADVISOR	 in partnership with has acquired a portfolio company of BUYSIDE ADVISOR	 has been acquired by SELLSIDE ADVISOR	A newly formed investment vehicle owned by has invested \$200 million in ACCRETIVE HEALTH in exchange for convertible preferred stock and warrants FINANCIAL OPINION	 has completed a control transaction with FINANCIAL ADVISOR

Recent News

Spotlight on Recent Houlihan Lokey Deals

Q-Centrix[®]

a portfolio company of

**STERLING
PARTNERS**

has been acquired by



Sellside Advisor

Closed November 2018

Houlihan Lokey recently advised Q-Centrix, a portfolio company of Sterling Partners, on its sale to TPG Growth

Company Overview

Q-Centrix provides integrated, technology-enabled data management solutions for more than 500 healthcare providers throughout the United States.

Key Value Drivers

- Market-leading tech platform that provides near real-time dashboard analytics for its clients. Q-Centrix processes 2+ million data transactions each year.
- Large and growing addressable market (\$1.9 billion) for quality and clinical measures data management solutions.
- Client base made up of the largest and most reputable private and non-profit health systems in the country.

GeBBS[®]

HEALTHCARE SOLUTIONS

Forward Thinking

has been acquired by



Sellside Advisor

Closed December 2018

Houlihan Lokey is pleased to announce that GeBBS Healthcare Solutions has been acquired by ChryCapital

Company Overview

GeBBS Healthcare Solutions is a leading provider of technology-enabled revenue cycle management solutions to blue-chip healthcare providers and payers.

Key Value Drivers

- Integrated platform of best-in-class health information management, revenue cycle management, patient contact, risk adjustment, and quality solutions.
- Highly scalable, quality-driven partner to some of the largest health systems, physician groups, and health plans in the U.S.
- Blue-chip client base spans ~100 marquee providers and payers across the U.S.—four of the top 15 health systems are clients.

Select Upcoming Conferences (Q1 – Q2 2019)

	Conference	Date	Location
2019	Feb. HIMSS	02/10 – 02/15	Orlando, FL
	Mar. HFMA Revenue Cycle Conference	03/20 – 03/22	Austin, TX
		AMIA Informatics Summit	03/25 – 03/28
	Apr. HCP Hospital & Healthcare IT Conference	04/01 – 04/03	Anaheim, CA
		Health Evolution Summit	04/10 – 04/12
	May Digital Health World Congress	05/07 – 05/08	London, U.K.
Jun. AHIP Institute & Expo	06/19 – 06/21	Nashville, TN	
	HFMA Annual Conference	06/23 – 06/26	Orlando, FL

Recent News (cont.)

Overview of Select Transactions From Q4 2018

ResMed acquires MatrixCare, expanding into LTC

Transaction Overview

Acquiror: 

Target: 

Enterprise Value: \$750 m

EV / Revenue: 6.1x

EV / EBITDA 25.0x

Target Company Background

- Cloud-based EHR solutions utilized in a variety of long-term care settings
- Comprehensive offering empowers Accountable Care Organizations, skilled nursing and senior living providers, life plan communities, and home health organizations

Strategic Rationale

- Broadens ResMed's software-as-a-service portfolio in the post-acute care space and diversifies ResMed's revenue base
- Specifically, new care settings complement ResMed's offerings in home medical equipment, home health and hospice delivered through Brightree and HEALTHCAREfirst
- Furtheres ResMed's plan to integrate its ecosystem to include single patient records across settings

"By establishing a technology footprint across these major care settings, ResMed will drive an integrated ecosystem of solutions... and streamlining processes for providers across the care continuum."

Raj Sodhi, ResMed SaaS President

athenahealth sells to Veritas Capital, Elliott for \$5.7 billion

Transaction Overview

Acquiror: 

Target: 

Enterprise Value: \$5.7 bn

EV / Revenue: 4.2x

EV / EBITDA 15.5x

Target Company Background

- Provider of EMR, revenue cycle, patient engagement, care coordination and population health services to hospital and ambulatory customers nationwide
- Partnered with over 120k providers and approximately 117m patients

Strategic Rationale


- athenahealth will be combined with Virence Health, (GE assets acquired in June of 2018)
- Brings together complementary offerings, and is expected to deliver cost synergies plus greater flexibility to invest in R&D
- Potential long-term strategy to bring together the ATHN provider data with the payor data of Cotiviti (recent Veritas take-private) expanding depth and reach across care continuum

"athenahealth is a market leader and a natural and strategic fit with Virence. Virence and athenahealth have differentiated and complementary solutions, deep relationships ...and a shared culture."

Ramzi Musallam, Chief Executive Officer

3M to Acquire M*Modal's Technology Business

Transaction Overview

Acquiror: 

Target: 

Enterprise Value: \$1.0 bn

EV / Revenue: 7.2x

EV / EBITDA 13.4x

Target Company Background

- Provider of cloud-based conversational artificial intelligence powered systems to providers
- Solutions help physicians efficiently capture and improve the patient narrative to enrich the content of EHRs and provide higher quality care

Strategic Rationale

- Acquired capabilities will allow the company to more quickly deliver on their mission of bringing AI and ambient intelligence into clinical workflows
- Fulfills 3M's long-term strategic plan to invest in Health Information Systems and bolsters current RCM capabilities
- Enhances position as a leader in cloud-based, conversational Artificial Intelligence

"This acquisition builds on our strategic commitment to invest in our Health Information Systems business and expands the capabilities of our RCM and population health priority growth platform"

Mike Vale, Executive Vice President

Recent News (cont.)

Artificial Intelligence

Hacking Health Care: How Tech Will Drive Down Costs

(The Wall Street Journal, December 6, 2018)

“With help from micro-electrical-mechanical systems, individual patients generate millions of data points every day, but doctors and hospitals aren’t able to view and understand this enormous volume of information. AI can quickly sift through vast amounts of data to enhance caregiving—and even save lives. Qualcomm’s AlertWatch OR AI system, which provides real-time analysis of patient data during surgery, reduces average hospital stays, according to AlertWatch’s research. AI is a game changer in health care because of its uncanny ability to identify patterns. That skill—searching for signs of abnormalities—is at the core of what pathologists, oncologists and radiologists do every day. Cancer applications of Watson, IBM’s artificial-intelligence system, have so far had limited impact on patients, but other oncology-related AI projects are faring better. Optellum, a startup based in the United Kingdom, has created an AI diagnostics system that claims to detect lung cancer in patients earlier than doctors can. Scientists in Japan created a system that detects deadly colorectal cancer with 86% accuracy, according to a study conducted at Tokyo’s Showa University. And a team at Stanford University built a database of 130,000 skin disease images and created an algorithm to diagnose skin cancer. We still need doctors—we need more doctors—but these AI tools will help physicians make better and more effective decisions.”

Personalized Health

Aetna, Apple Partner on Personalized Health App

(Modern Healthcare, January 31, 2019)

“Aetna, part of CVS Health, has partnered with tech giant Apple to rollout the new personalized health app Attain. Attain will provide Aetna members using an Apple Watch personalized health goals and recommendations as well as the ability to track their daily activity levels, the companies said Tuesday. It will offer incentives for taking action to improve health and well-being. For example, recommendations are based on clinical guidelines and may include notifications to get vaccinations or refill medications. It also will highlight the availability of lower-cost options for lab tests and imaging, the companies said. Rewards may include points that can be redeemed to defray the cost of a member’s Apple Watch or gift cards. ‘We’re designing Attain to be personalized and clinically relevant to where each individual is in their health journey,’ said Dr. Alan Lotvin, Executive Vice President of Transformation for CVS Health, in a statement. ‘This is an ambitious challenge, and we will adapt and improve over time to create the best experience for our members.’”

Health Information Management

Hospitals Turn to Biometrics to Identify Patients

(The Wall Street Journal, February 6, 2019)

“Biometric systems, which identify people through fingerprints or other physical characteristics, have long been in use in sectors like law enforcement and consumer electronics. Now hospitals are using iris and palm-vein scanning to overcome a growing patient-identification problem. Health systems have swelled increasingly large and have millions of patients in their records. One result is that these records often contain thousands of people who share the same name and date of birth with at least one other person in the system—in one extreme case, more than 500 women in one system have the same name and were born on the same day. That and other record-keeping challenges mean it’s easier than ever for patients to be misidentified and given the wrong care. New tools attempt to solve these problems by linking patients’ unique physical characteristics to their medical records. Hundreds of hospitals are using biometric technology to help them identify people correctly, according to an October report by Pew Charitable Trusts, with research firm Gartner Inc. projecting that 40% of healthcare providers will use biometrics for patient identification by 2022.”

Recent Transactions

Healthcare Technology – 2018 Select Transactions

(\$ in millions)

Ann. Date	Target	Target Description	Acquiror	Enterprise Value (EV)	EV / LTM Revenue	EV / LTM EBITDA
Dec-18	M*Modal (Technology Business)	Cloud-based AI-powered systems that help improve patient care	3M Companies	\$1,000	7.2x	13.4x
Dec-18	PokitDok	Blockchain platform-as-a-service company for healthcare	Change Healthcare	ND	ND	ND
Nov-18	athenahealth	Network-enabled services for healthcare and point-of-care mobile apps	Veritas Capital	5,700	4.2x	15.5x
Nov-18	MatrixCare	EHR systems to the long-term post-acute care industry	ResMed (RMD)	750	6.1x	25.0x
Oct-18	Health Solutions Plus	Healthcare payer administration solutions	Conduent Inc.	98	ND	ND
Oct-18	Symplr	Healthcare governance, risk and compliance (GRC) SaaS platform	Clearlake Capital	ND	ND	ND
Aug-18	Netsmart	Human services and integrated care technology provider	GI Partners, TA Associates	525	1.5x	ND
Aug-18	AdvancedMD	Cloud-based SaaS solutions to small-to-medium physician practices	Global Payments (NYSE:GPN)	700	5.8x	ND
May-18	RedBrick	Live and digital coaching and benefits navigation	Virgin Pulse	ND	ND	ND
May-18	SCIO Health Analytics	Advanced analytics and performance optimization solutions	ExlService (NASDAQ:EXLS)	240	3.0x	16.9x
Apr-18	GE Healthcare Software Division	RCM, ambulatory care, and workforce management software	Veritas Capital	ND	ND	8.8x
Mar-18	Ability Network	Cloud-based specialized applications and data analytics	Inovalon (NASDAQ:INOV)	1,200	7.3x	14.4x
Feb-18	Allscripts OneContent Business	Document capture and health record management software	Hyland Software	ND	ND	ND
Feb-18	OmniClaim	Analytics and claim validation software platform	Equian	310	7.2x	14.4x
Feb-18	Flatiron Health	Oncology-specific EHR software and real-world evidence platform	Roche (SWX:ROG)	1,900	ND	ND
Feb-18	General Dynamics	Commercial health insurance payer-focused products	Verscend Technologies	ND	ND	ND
Jan-18	Practice Fusion	Cloud-based EHR platform for doctors and patients	Allscripts (NASDAQ:MDRX)	100	ND	ND
Mean				\$989	5.0x	13.3x
Median				\$525	5.8x	14.4x

Tech-Enabled Services – 2018 Select Transactions

(\$ in millions)

Ann. Date	Target	Target Description	Acquiror	Enterprise Value (EV)	EV / LTM Revenue	EV / LTM EBITDA
Dec-18	GeBBS Healthcare	Tech-enabled revenue cycle management solutions	ChrysCapital	ND	ND	ND
Nov-18	Q-Centrix	Quality and clinical measures data management solutions to providers	TPG Growth	ND	ND	ND
Sep-18	Apex Revenue Technologies	Cloud-based software promotes patient financial engagement	RevSpring	\$200	ND	10.7x
Aug-18	Great Call	Mobile devices for older adults	Best Buy	800	ND	ND
Jun-18	Cotiviti Holdings (NYSE: COTV)	Payment accuracy and analytics-driven solutions	Verscend Technologies	ND	ND	ND
Apr-18	MedPartners HIM	Revenue integrity, patient care management, and care-quality services	AMN Healthcare (NYSE:AMN)	215	1.7x	10.8x
Mar-18	Bolder Healthcare Solutions	End-to-end healthcare RCM solution	Cognizant (NASDAQ:CTSH)	500	3.2x	12.6x
Feb-18	Intermedix Corporation	RCM, practice management, and data analytics services	R1 RCM (NASDAQ:RCM)	460	2.4x	9.6x
Feb-18	BMS Practice Solutions	Rehab therapy billing and collections technology and services	WebPT	ND	ND	ND
Mean				\$924	3.4x	11.7x
Median				\$338	2.9x	11.4x

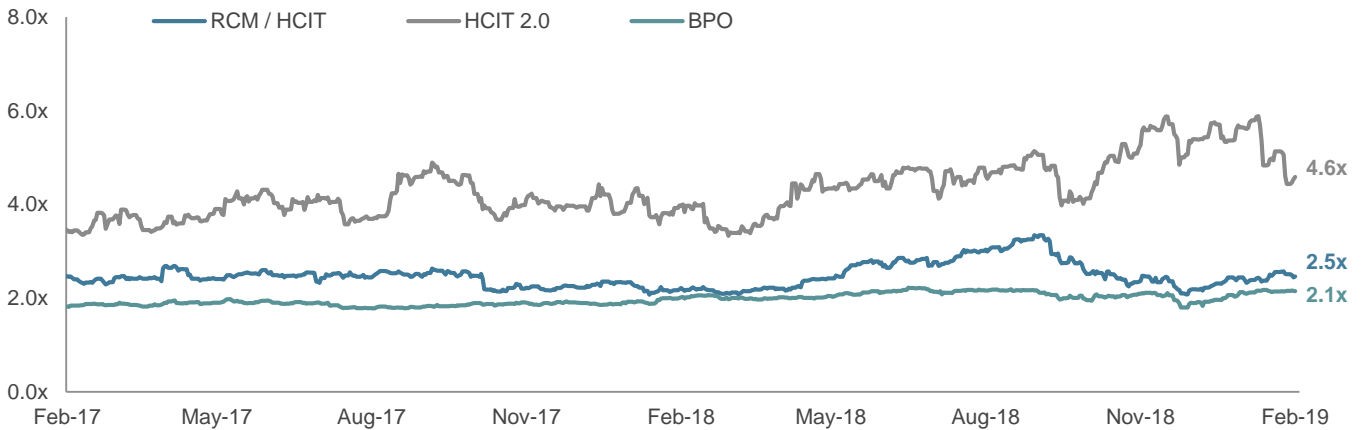
Note: Mean and Median take into deals in which Houlihan Lokey served as the financial advisor.
Source: Company Filings; Bloomberg; CapIQ; Pitchbook; Mergermarket

Public Company Valuation

Performance vs S&P 500 (Feb 2017 – Feb 2019)



Median NTM EV / Revenue (Feb 2017 – Feb 2019)

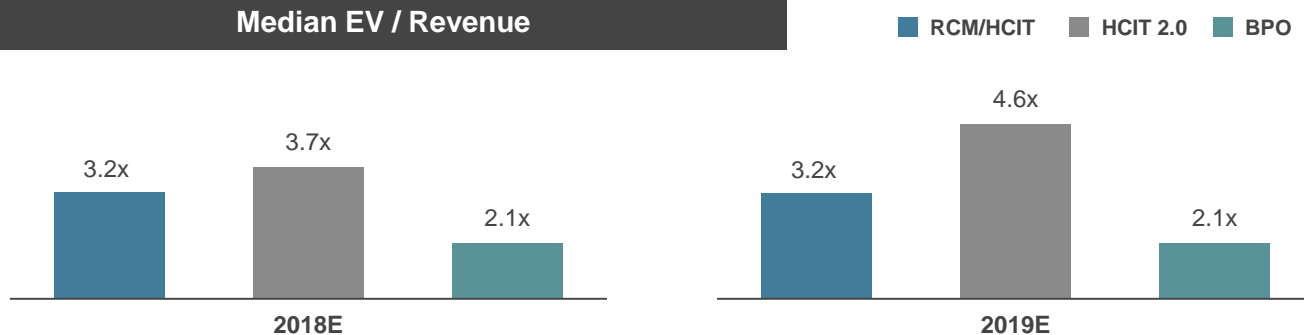


Median NTM EV / EBITDA (Feb 2017 – Feb 2019)

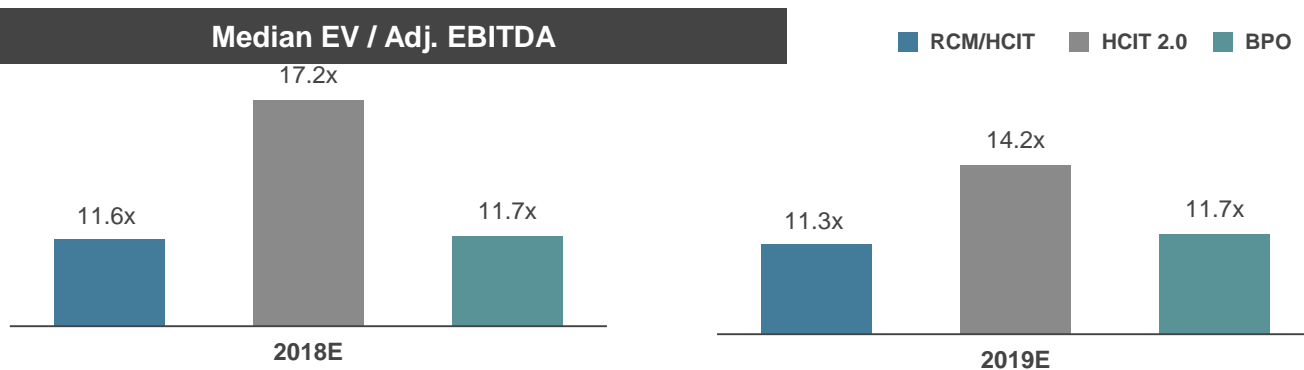


Public Company Valuation (cont.)

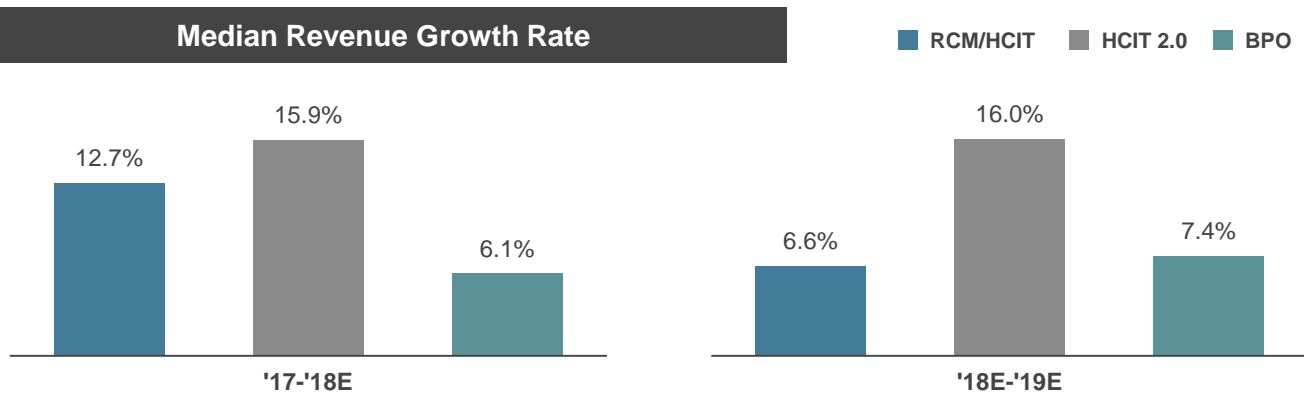
Median EV / Revenue



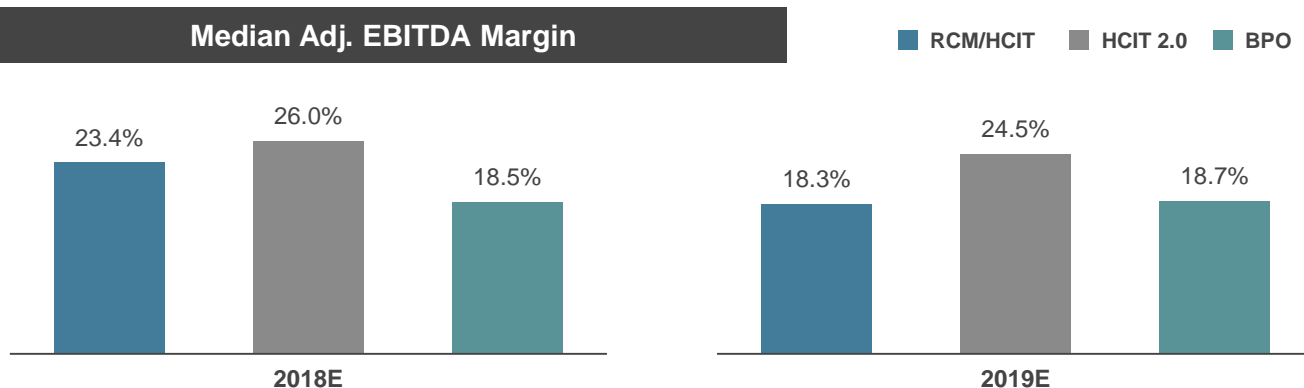
Median EV / Adj. EBITDA



Median Revenue Growth Rate



Median Adj. EBITDA Margin



Public Company Valuation (cont.)

(\$ in millions)

Company	Market Cap	Enterprise Value	EV / Revenue		EV / Adj. EBITDA		Revenue Growth		Adj. EBITDA Margin		
			2018E	2019E	2018E	2019E	17'-18'	18'-19'	2018E	2019E	
RCM / HCIT											
Cerner Corporation	\$18,485	\$18,154	3.4x	3.2x	11.6x	10.8x	4.9%	6.6%	29.1%	29.4%	
Premier, Inc.	5,901	5,866	3.6x	3.5x	10.3x	10.4x	12.7%	3.1%	34.8%	33.5%	
Nuance Communications, Inc.	4,806	6,573	3.2x	3.5x	11.1x	11.5x	4.1%	(8.8%)	28.7%	30.3%	
Medidata Solutions, Inc.	4,601	4,449	7.0x	6.0x	NM	NM	16.7%	16.1%	23.4%	24.5%	
Omnicell, Inc.	3,328	3,396	4.3x	3.8x	NM	NM	10.4%	12.6%	15.9%	17.5%	
HMS Holdings Corp.	2,950	3,011	5.0x	4.7x	18.6x	17.3x	14.8%	8.0%	27.1%	27.0%	
CompuGroup Medical Societas Europaea	2,543	2,843	4.0x	3.9x	13.1x	14.3x	22.7%	3.2%	25.5%	26.9%	
Allscripts Healthcare Solutions, Inc.	1,854	2,378	1.1x	1.3x	5.9x	7.8x	16.8%	(16.2%)	18.8%	16.9%	
NextGen Healthcare, Inc.	1,151	1,149	2.2x	2.2x	13.2x	13.0x	3.4%	(0.1%)	16.6%	16.8%	
Evolent Health, Inc.	1,102	1,141	1.8x	1.4x	NM	NM	44.1%	33.9%	3.7%	0.8%	
R1 RCM Inc.	1,100	1,633	1.9x	1.4x	NM	11.1x	93.4%	37.3%	6.6%	12.3%	
HealthStream, Inc.	885	716	3.1x	2.8x	10.1x	18.8x	(6.8%)	10.1%	30.8%	15.0%	
Computer Programs and Systems, Inc.	453	578	2.0x	2.0x	12.0x	11.0x	1.9%	2.2%	17.0%	18.3%	
Median	\$2,543	\$2,843	3.2x	3.2x	11.6x	11.3x	12.7%	6.6%	23.4%	18.3%	
Mean	\$3,782	\$3,991	3.3x	3.0x	11.8x	12.6x	18.4%	8.3%	21.4%	20.7%	

HCIT 2.0											
IQVIA Holdings Inc.	\$28,016	\$38,339	3.7x	3.5x	17.2x	15.9x	28.6%	6.3%	21.5%	21.8%	
Veeva Systems Inc.	16,890	15,800	NM	NM	NM	NM	25.1%	25.9%	47.0%	44.7%	
HealthEquity, Inc.	5,058	4,728	NM	NM	NM	NM	27.5%	25.6%	50.1%	47.2%	
Teladoc Health, Inc.	4,837	4,773	NM	8.7x	NM	NM	78.0%	32.0%	3.2%	7.8%	
Inovalon Holdings, Inc.	2,039	2,893	5.0x	4.6x	19.0x	14.2x	(0.1%)	8.9%	26.2%	32.2%	
Benefitfocus, Inc.	1,649	1,697	6.6x	5.6x	NM	NM	0.1%	18.8%	4.0%	6.0%	
Vocera Communications, Inc.	987	876	4.9x	4.6x	NM	NM	11.1%	5.8%	11.7%	11.9%	
Craneware plc	714	674	NM	8.5x	NM	NM	15.9%	18.6%	0.4x	0.4x	
EMIS Group plc	590	563	3.3x	3.2x	12.8x	11.8x	5.8%	4.2%	26.0%	27.1%	
Castlight Health, Inc.	436	373	2.4x	2.4x	NM	NM	17.8%	2.3%	NM	5.2%	
NantHealth, Inc.	70	246	2.7x	2.4x	NM	NM	3.5%	16.0%	NM	NM	
Median	\$1,649	\$1,697	3.7x	4.6x	17.2x	14.2x	15.9%	16.0%	26.0%	24.5%	
Mean	\$5,572	\$6,451	4.1x	4.8x	16.3x	14.0x	19.4%	15.0%	25.0%	23.9%	

Business Process Outsourcing											
Cognizant Technology Solutions Corporation	\$41,010	\$37,244	2.1x	2.1x	9.9x	9.9x	8.8%	7.7%	20.2%	21.6%	
CGI Inc.	24,266	26,104	2.2x	2.2x	11.7x	11.7x	6.1%	4.1%	18.5%	18.7%	
Perficient, Inc.	950	1,025	1.9x	1.9x	12.3x	12.3x	2.0%	7.4%	15.4%	15.7%	
Median	\$24,266	\$26,104	2.1x	2.1x	11.7x	11.7x	6.1%	7.4%	18.5%	18.7%	
Mean	\$22,075	\$21,458	2.1x	2.1x	11.3x	11.3x	5.6%	6.4%	18.1%	18.7%	

Total Median	\$2,039	\$2,843	3.2x	3.2x	12.0x	11.7x	11.1%	7.7%	21.5%	20.1%
Total Mean	\$6,543	\$6,934	3.4x	3.6x	12.6x	12.6x	17.4%	10.8%	22.3%	21.7%

About Houlihan Lokey

Houlihan Lokey (NYSE:HLI) is a global investment bank with expertise in [mergers and acquisitions](#), [capital markets](#), [financial restructuring](#), [valuation](#), and [strategic consulting](#). The firm serves corporations, institutions, and governments worldwide with offices in the United States, Europe, the Middle East, and the Asia-Pacific region. Independent advice and intellectual rigor are hallmarks of the firm's commitment to client success across its advisory services. Houlihan Lokey is ranked as the No. 1 M&A advisor for all U.S. transactions, the No. 1 global restructuring advisor, and the No. 1 global M&A fairness opinion advisor over the past 20 years, according to Thomson Reuters.

Locations

North America	Europe & Middle East	Asia-Pacific
Atlanta	Amsterdam	Beijing
Chicago	Dubai	Hong Kong
Dallas	Frankfurt	Singapore
Houston	London	
Los Angeles		
Miami	Madrid	Sydney
Minneapolis	Milan	Tokyo
New York	Paris	
San Francisco		
Washington, D.C.		

HLI
LISTED
NYSE

Houlihan Lokey holds an indirect minority stake in Leonardo & Co. S.p.A., an investment bank with an office in Milan.

Industry Expertise

Product Expertise

Mergers & Acquisitions
Capital Markets
Financial Restructuring
Financial Advisory
Strategic Consulting

Dedicated Industry Groups

Business Services
Consumer, Food & Retail
Data & Analytics
Energy
Financial Institutions
Healthcare
Industrials
Real Estate, Lodging & Leisure
Technology•Media•Telecom

Financial Sponsors

Active Dialogue
With a Diverse Group of
1000+ Sponsors
Private Equity Firms
Hedge Funds
Capital Alliances

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