



Cybersecurity Quarterly Update

TECHNOLOGY, MEDIA, AND TELECOMMUNICATIONS

Q4 2020

HLI
LISTED
NYSE

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

- **1,500+** Employees
- **\$1+ Billion** of Revenue
- **23** Locations Globally
- **~\$5 Billion** Market Cap



2020 TMT Investment Bank of the Year

Corporate Finance

2020 M&A Advisory Rankings All U.S. Transactions

	Advisor	Deals
1	Houlihan Lokey	210
2	Goldman Sachs & Co	172
3	JP Morgan	132
4	Evercore Partners	126
5	Morgan Stanley	123

Source: Refinitiv (formerly known as Thomson Reuters)

Financial Restructuring

2020 Global Distressed Debt & Bankruptcy Restructuring Rankings

	Advisor	Deals
1	Houlihan Lokey	106
2	PJT Partners Inc	63
3	Lazard	50
4	Rothschild & Co	46
5	Moelis & Co	39

Source: Refinitiv (formerly known as Thomson Reuters)

Financial and Valuation Advisory

2001 to 2020 Global M&A Fairness Advisory Rankings

	Advisor	Deals
1	Houlihan Lokey	956
2	JP Morgan	876
3	Duff & Phelps	802
4	Morgan Stanley	599
5	BofA Securities Inc	542

Refinitiv (formerly known as Thomson Reuters). Announced or completed transactions.

Technology, Media, and Telecom

2018 to 2020 M&A Advisory Rankings U.S. Technology, Media, Entertainment & Telecom Transactions Under \$5 Billion *

	Advisor	Deals
1	Houlihan Lokey	133
2	Goldman Sachs & Co	123
3	Raymond James Financial Inc	110
3	Morgan Stanley	110
5	JP Morgan	108

Source: Refinitiv (formerly known as Thomson Reuters)

No. 1 U.S. M&A Advisor

Top 5 Global M&A Advisor

Leading Capital Markets
Advisor

No. 1 Global Restructuring
Advisor

1,400+ Transactions
Completed Valued at More
Than \$3.0 Trillion Collectively

No. 1 Global M&A Fairness
Opinion Advisor Over the Past
20 Years

1,000+ Annual Valuation
Engagements

43 Completed Transactions in
2020

* Includes acquired firm transactions.

Dedicated Team Focused on All Aspects of Cyber

100+ Years and \$350+ Billion of Combined TMT Industry Knowledge and Transaction Experience



Rob Louv
Co-Head,
Managing Director, TMT
Miami



Bobby Wolfe
Director, TMT
Miami



Vik Sood
Director, TMT
San Francisco



Vik Pandit
Director, TMT
New York



Will Eide
Director, TMT
San Francisco



















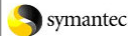






































Larry DeAngelo
Managing Director,
Head of Business
Services
Atlanta

Core Coverage Verticals

Cloud Security	Cyber Consulting, Services, and Training	Data Protection, Integrity, and Security
Endpoint Security	Encryption Security	Fraud and Risk Protection
Governance, Risk, and Compliance	Identity and Privileged Access Management	Incident Response
IoT Security	Log Management	Managed Detection Response
Managed Security Service Providers	Managed SOC	Messaging Security
Mobile Security	Network Operations and Security	Penetration Testing
Threat Intelligence		Web Security

Representative Cybersecurity Experience

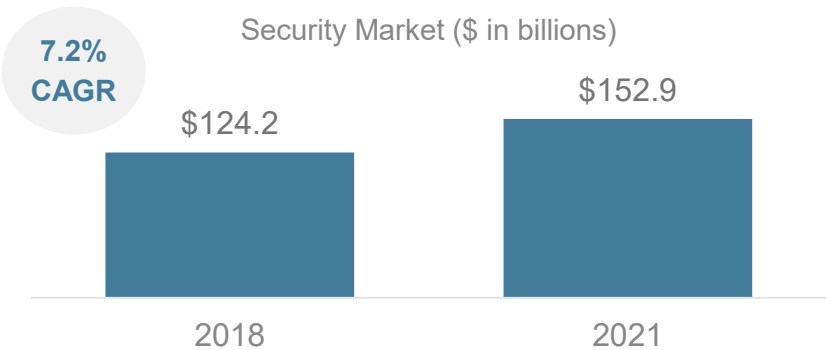
 <p>has been acquired by</p>  <p>Sellside Advisor</p>	 <p>a portfolio company of</p>  <p>Financial Advisor</p>	 <p>has received an equity investment from</p>  <p>Financial Advisor</p>	 <p>has acquired</p>  <p>Buyside Advisor</p>	 <p>has been acquired by</p>  <p>MADISON DEARBORN PARTNERS, LLC</p> <p>Sellside Advisor</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>has sold substantially all its assets, pursuant to Section 363 of the U.S. Bankruptcy Code, to</p>  <p>Company Advisor</p>
 <p>a wholly owned subsidiary of</p>  <p>has been acquired by</p>  <p>Transforming the Art of Threat Intelligence</p> <p>Sellside Advisor</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>Allen Systems Group's First Lien Creditors sold their position at par plus accrued interest and acceleration premium</p> <p>Secured Creditor Advisor</p>	 <p>received a significant investment from</p>  <p>Financial Advisor</p>	 <p>has been acquired by</p>  <p>Sellside Advisor</p>	 <p>has been acquired by</p> <p>International Business Machines Corporation</p> <p>Fairness Opinion</p>	 <p>has been acquired by</p>  <p>Financial & Tax Due Diligence</p>
 <p>has been recapitalized in partnership with</p>  <p>Sellside Advisor</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>
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*Selected transactions were executed by Houlihan Lokey professionals while at other firms acquired by Houlihan Lokey or by professionals from a Houlihan Lokey joint venture company. Tombstones included herein represent transactions closed from 2009 forward.

Security Market Update

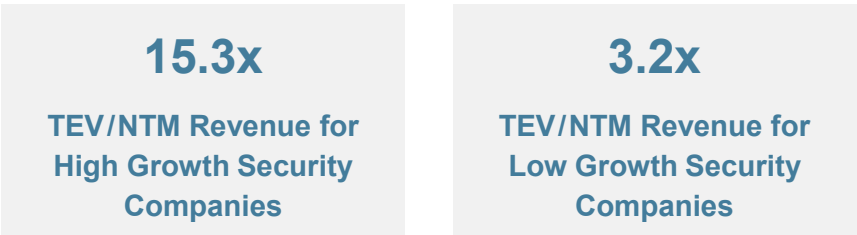
Momentum in the security market is expected to continue, driven by strong public markets and a growing volume of transactions.

General Market Environment



- Digital transformation is placing pressure to invest in security technology and, in particular, cloud security.

Public Market Environment



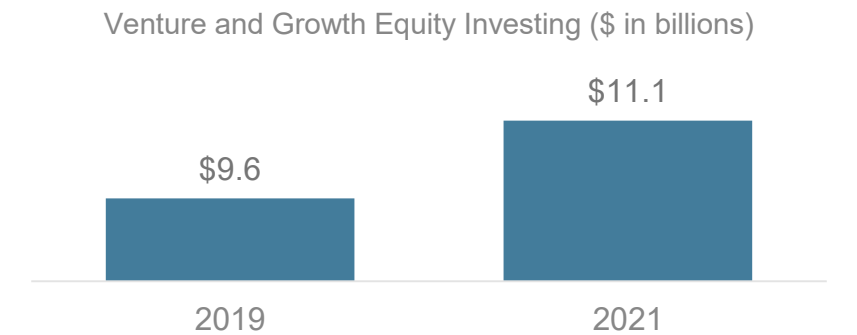
- Public markets continue to reward and prioritize topline growth.
- 2020 IPOs in the security space included Sumo Logic (September 2020) and McAfee (October 2020).

M&A Environment



- Leading players continue to pay scarcity premiums for best-of-breed solutions to fill out product suite and portfolio gaps.
- There is considerable private equity interest given FCF profiles.

Private Company Funding



- Emerging segments such as vulnerability assessment, encryption, tokenization, and user and entity behavior analytics continue to attract venture capital funding.

Summary of IT Market Trends and Dynamics

The cybersecurity market is benefiting from significant tailwinds and is expected to be a ~\$153 billion market in 2021.



Cyber Investor Profile: Sunstone Partners



Fund Overview

- A leading growth-oriented private equity firm that makes majority and minority investments in technology-enabled services and software businesses;
- Sunstone was formed in 2015 through a spin-out of the growth equity team at Trident Capital
- Target \$10 million+ of revenues growing at ~20%+ year over year
- Target check size of \$30 million–\$100 million

Key Cyber-Focused Partners



- Gus Alberelli, Co-Founder and Managing Director
- Board Director of Avertium, NetSPI, Nexa, RSource, and UserZoom



- Mike Biggee, Co-Founder and Managing Director
- Board Director of Avertium, Cloudbakers, Med Tech Solutions, NetSPI, ProgenyHealth, and Thirdera



- Ankur Rathi, Principal
- Involved in the firm's investments in NetSPI, ProgenyHealth, and Avertium

Relevant Portfolio Companies



AVERTIUM

- **Acquisition Date:** May 2019
- Cybersecurity services provider to mid/large enterprises



NETSPI

- **Investment Date:** April 2017
- Security testing and vulnerability correlation

Relevant Prior Investments



Acquired by AT&T



Acquired by TA Associates



Acquired by Madison Dearborn



Acquired by Akamai



Acquired by Blue Coat



Acquired by EMC

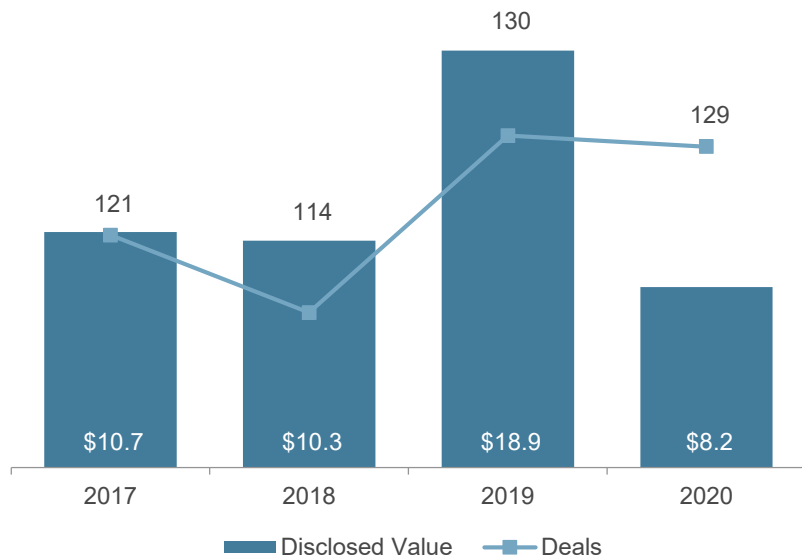


Acquired by HP

Strategic M&A Remains an Exciting Exit for Cyber Companies

Cyber Strategic M&A Summary (2017–2020)

(\$ in billions)



Key Takeaways

- Strategic acquisitions continue to be the favored exit for security software companies over the past few years, with a dip in 2020 driven by uncertainty caused by COVID-19.
- Total dollar amount has displayed strong growth, although the activity slowed down in 2020 after a banner 2019.
- Strategic activity in 2020 rebounded in 2H, closing out the year with 129 total M&A transactions completed by strategics.
- Large and mega cap corporations are seeking to strengthen and expand their offerings as cyber threats continue to grow in complexity.

Notable Transactions

Date	Acquirer	Target	Subsector	EV \$M	EV/Rev
12/08/2020	PDI	ECHOSAT INC.	Managed Security	ND	ND
12/07/2020	NortonLifeLock	Avira	Web/Mobile Security	\$360	NA
12/02/2020	sysnet	ControlScan	Managed Security	ND	ND
11/19/2020	Nasdaq	VERAFIN	Anti-Fraud Detection	\$2,750	NA
11/19/2020	FIREEYE	respond	Threat Management	\$186	NA
11/11/2020	paloalto	EXPANSE	Security Management	\$800	NA
11/10/2020	ConnectWise	STRATOZEN	Managed Security	\$25	NA
11/10/2020	ConnectWise	PERCH	Managed Security	\$75	12.5x
09/29/2020	vmware	SALTSTACK	Infrastructure Security	\$51	ND
09/28/2020	ivanti	PulseSecure	Network Security	\$530	2.7x
09/28/2020	ivanti	mobileiron	Endpoint Security	\$842	3.9x
09/28/2020	ARISTA	AWAKE	Network Security	\$181	NA
09/23/2020	CRITICALSTRIKE	prēempt	Threat Prevention	\$96	NA
08/27/2020	fastly	Signal Sciences	Network Security	\$775	31.0x
06/22/2020	Microsoft	CYBERX	IoT Security	\$165	11.0x
06/04/2020	vmware	lastline	Anti-Malware	\$160	6.4x
04/28/2020	RAPID7	DivvyCloud	Cloud Security	\$145	14.5x
03/19/2020	THOMSON REUTERS	PONDERA	Anti-Fraud Detection	\$125	12.5x
01/23/2020	Moody's	trdc	Compliance Management	\$700	10.0x
01/13/2020	LexisNexis	id:analytics	Transaction Security	\$375	NA
01/07/2020	accenture	Symantec Cybersecurity Assets	Threat Management	\$200	NA

Significant Private Equity Interest for Cyber Transactions (M&A)

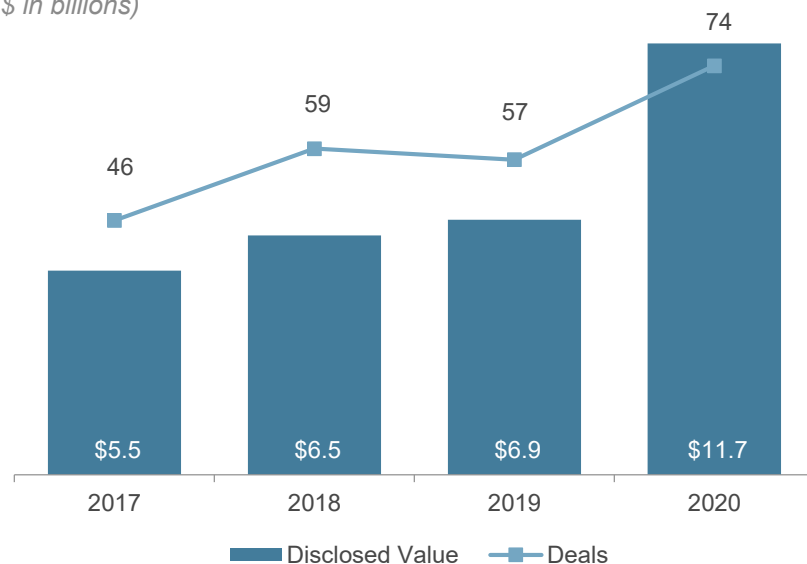
Notable Transactions

Date	Acquirer	Target	Subsector	EV \$M	EV/Rev
12/16/2020	CORSAIR CAPITAL	IDENTITYIQ	Identity Theft Monitoring	NA	NA
12/10/2020	THOMABRAVO	VENAFI	SSL and Encryption Management	\$1,150	16.4x
11/12/2020	MAIN CAPITAL PARTNERS	POINTSHARP	Identity and Access Management	NA	NA
10/26/2020	FP FINANCIAL PARTNERS	Forcepoint	Data Protection and Access Management	\$1,000	1.4x
09/16/2020	GI PARTNERS	SECTIGO	Threat Management	\$900	3.0x
09/08/2020	COVE HILL PARTNERS	SECURELINK	Data Protection and Access Management	NA	NA
06/02/2020	THOMABRAVO	EXOSTAR	Identity and Access Management	NA	NA
05/19/2020	Charlesbank	CYBERBIT	Cybersecurity Training and Simulation	\$48	NA
05/13/2020	THOMSON STREET CAPITAL PARTNERS	PKWARE	Data Security	NA	NA
03/16/2020	HELLMAN & FRIEDMAN	Checkmarx	Vulnerability Assessment	\$1,150	11.5x
03/05/2020	MARLIN EQUITY PARTNERS	HEIMDAL	Anti-Malware	NA	NA
02/18/2020	STG	RSA	Identity and Access Management	\$2,075	2.6x
02/06/2020	Advent International	FORESCOUT	Network Security	\$1,854	5.5x
02/03/2020	ZMC	simeio	Identity and Access Management	NA	NA
01/15/2020	SKYVIEW CAPITAL	Fidelis Cybersecurity	Network Security	NA	NA
01/06/2020	INSIGHT PARTNERS	ARMIS	Endpoint Security	\$1,100	18.3x

Sources: 451 Research; NA indicates not publically available.

Private Equity M&A Summary (2017–2020)

(\$ in billions)



Key Takeaways

- PE activity in the security software space has been robust with a banner 2020 in terms of both deals completed and disclosed deal value.
- Deal value has been trending upward over the past few years, with a significant uptick to \$11.7 billion in 2020 setting a record for deal volume and total deal value.
- Firms are looking to capitalize on the shift toward non-legacy security driven by more advanced threats, expanded attack vectors, and increased network complexity.

2020 Cyber IPOs Depicted a Tale of Two Cities

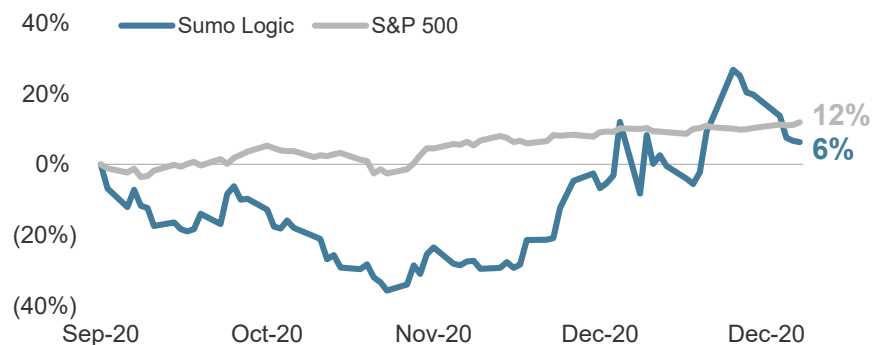
sumo logic

- **Overview:** Sumo Logic enables organizations to automate the collection, ingestion, and analysis of application, security, infrastructure, and IoT data to derive actionable insights.
- **Major Pre-IPO Investors:** Accel Partners, Sequoia Capital, Battery Ventures

Key Metrics

CY2020 Revenue	\$201 million
CY 2019-2020E Revenue Growth	29%
CY2020 EBITDA	(\$29) million
EBITDA Margin	NM
Debt Load at IPO	\$24 million
Debt / EBITDA at IPO	NM
IPO Launch Date	09/17/2020
IPO Price per Share / % Difference vs Filing Price Midpoint	\$22 / 16%
Day 1 / Day 30 % Change (vs IPO Price)	22% / 0%

2020 Stock Performance Since IPO

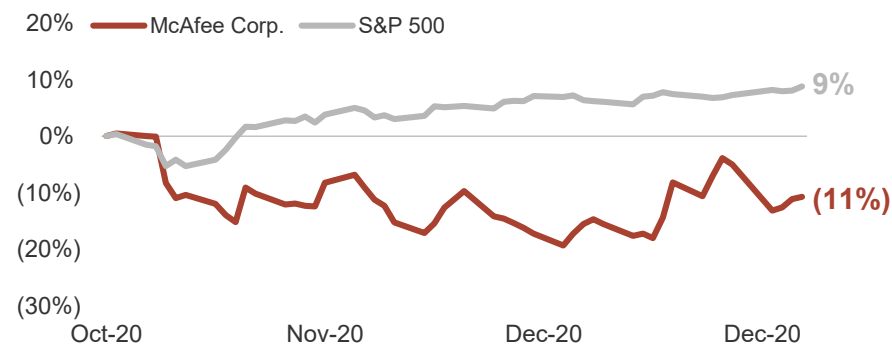


- **Overview:** McAfee provides various integrated security, privacy, and trust solutions to consumers, small and medium-sized businesses, large enterprises, and governments.
- **Major Pre-IPO Investors:** TPG Capital, Fisher Lynch Capital, Thoma Bravo

Key Metrics

CY2020 Revenue	\$2.9 billion
CY 2019-2020E Revenue Growth	9%
CY2020 EBITDA	\$1.1 billion
EBITDA Margin	32%
Debt Load at IPO	\$4.9 billion
Debt / EBITDA at IPO	5.5x
IPO Launch Date	10/22/2020
IPO Price per Share / % Difference vs Filing Price Midpoint	\$20 / (2%)
Day 1 / Day 30 % Change (vs IPO Price)	(7%) / (21%)

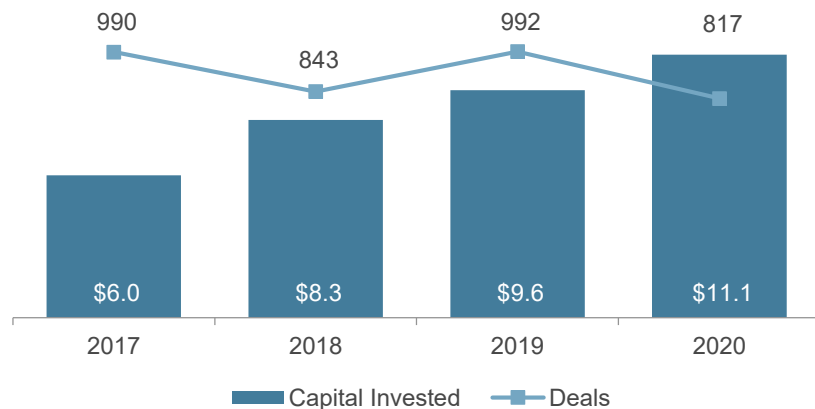
2020 Stock Performance Since IPO



Cyber Software Activity Drawing Growth Equity

Security Private Funding Summary (2017–2020)

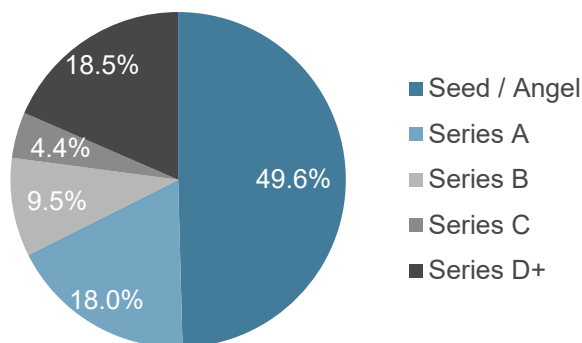
(\$ in billions)



Private Funding Volume by Round (2017–2020)

(\$ in millions)

Percent of Deals by Round



Deal Valuation by Round

Median Post-Money Valuation

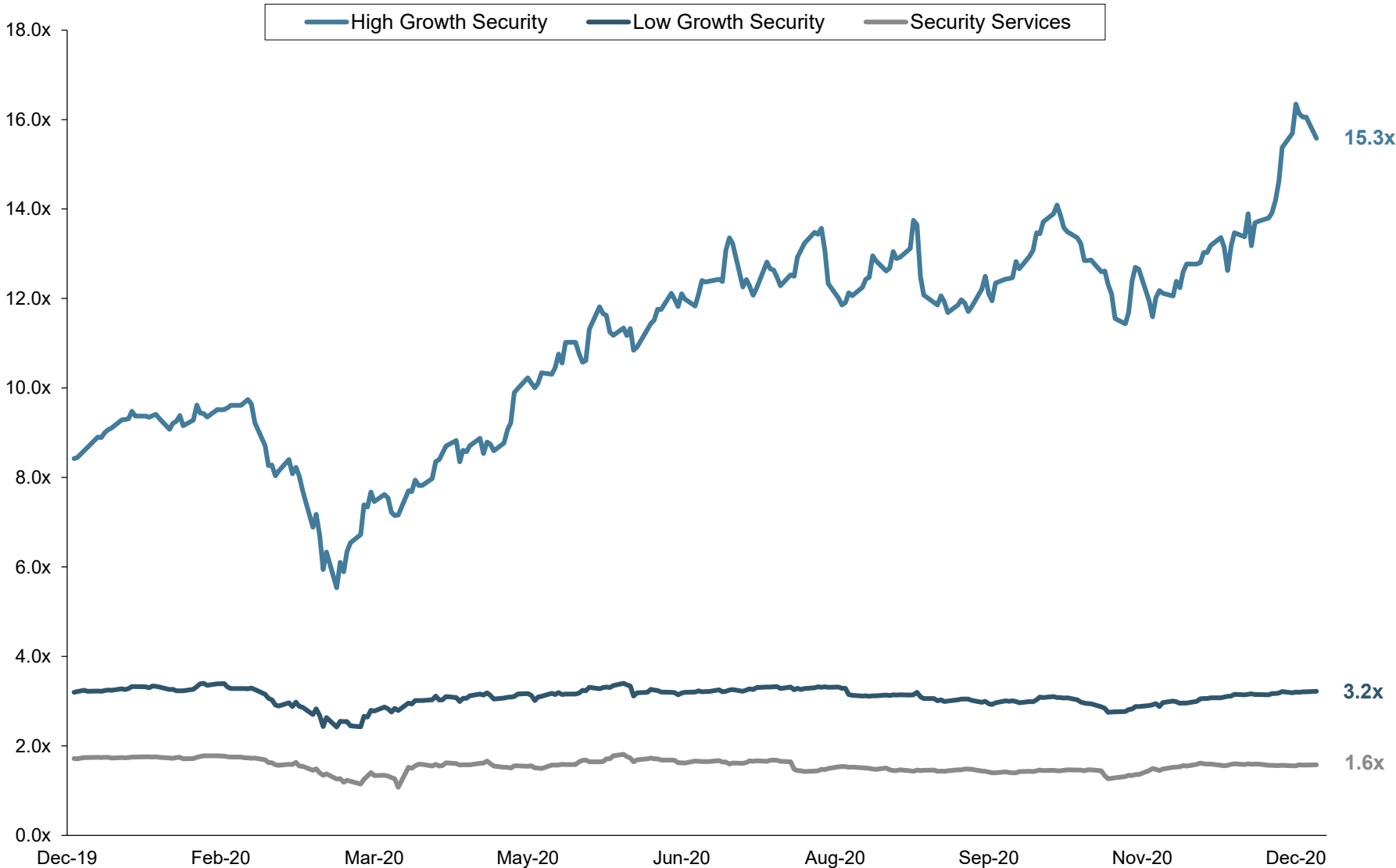
	Seed / Angel	Series A	Series B	Series C	Series D+
Median Post-Money Valuation	\$8.6	\$31.0	\$90.5	\$172.0	\$250.0

Notable Transactions

Deal Date	Lead Investor	Target	Subsector	Transaction Value \$M
12/21/2020	TCV	OneTrust	Compliance Management	\$300
11/11/2020	TIGERGLOBAL	SentinelOne	Endpoint Detection and Response	\$267
10/22/2020	CARLYLE	ARCTIC WOLF	Security Monitoring	\$235
10/09/2020	2b Global Capital	rubrik	Data Protection	\$374
09/30/2020	BainCapital	BIOCATCH	Threat Management	\$168
09/15/2020	ADDITION	snyk	Network Security	\$200
07/14/2020	cloud ventures	Auth0	Identity and Access Management	\$120
07/11/2020	CARLYLE	nextra	Managed Services	\$235
03/17/2020	JUNIPER NETWORKS	STACKPATH	Enterprise Cloud Security	\$216
03/16/2020	IDEA SECURITIES	HashiCorp	Cloud Security	\$175
02/27/2020	SEQUOIA	netskope	Threat Detection	\$350
02/20/2020	INSIGHT VENTURE PARTNERS	OneTrust	Compliance Management	\$210
02/19/2020	INSIGHT VENTURE PARTNERS	SentinelOne	Endpoint Detection and Response	\$200

Select Public Multiples – Forward 12 Months

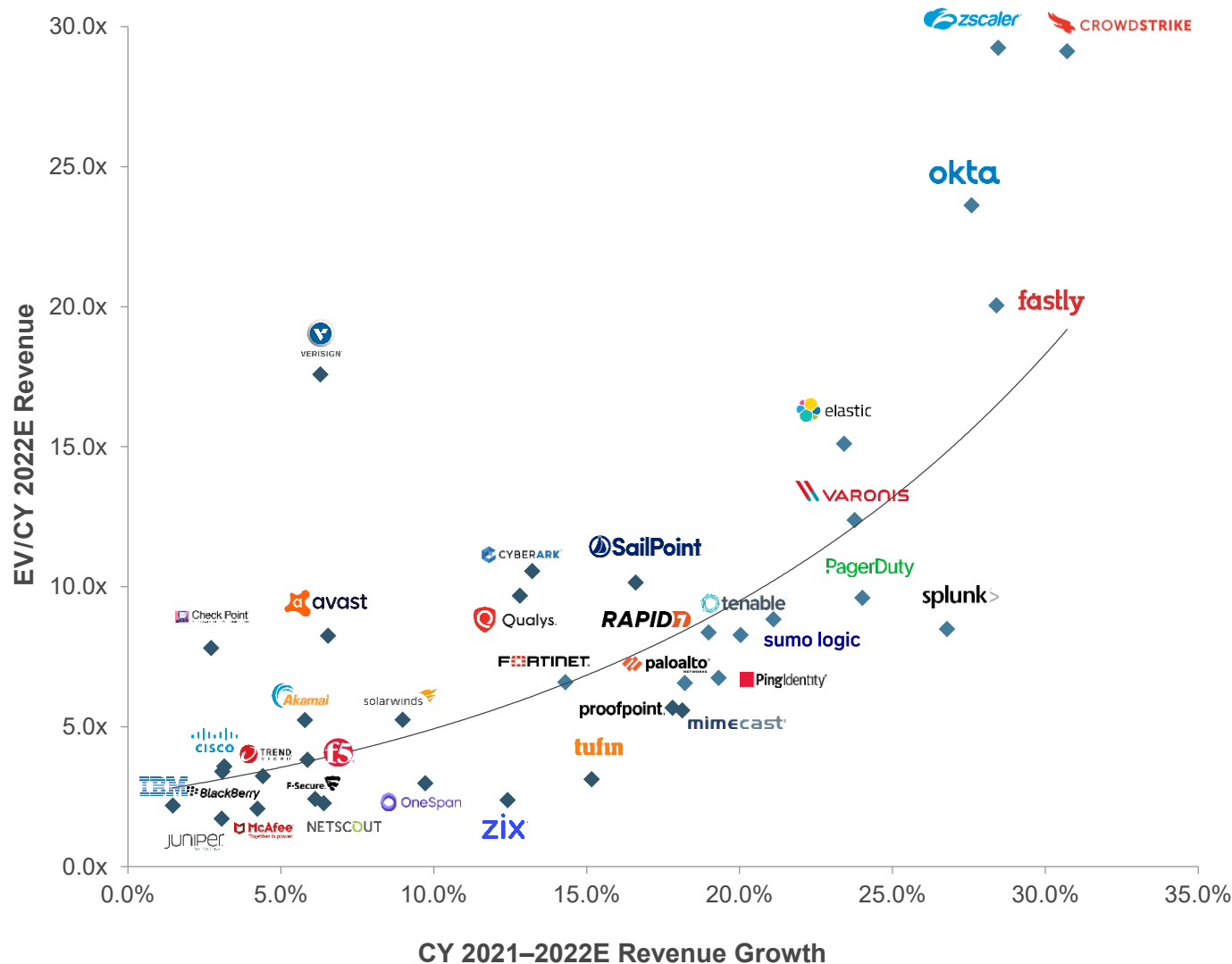
EV/NTM Revenue



Sources: S&P Capital IQ, Market data as of December 31, 2020.
Note: Indices contain public companies on the following pages and weighted by market capitalization.

Investors Still Pay Up for Growth

CY 2021E-2022E Revenue Growth Rate vs. EV/CY 2022E Revenue

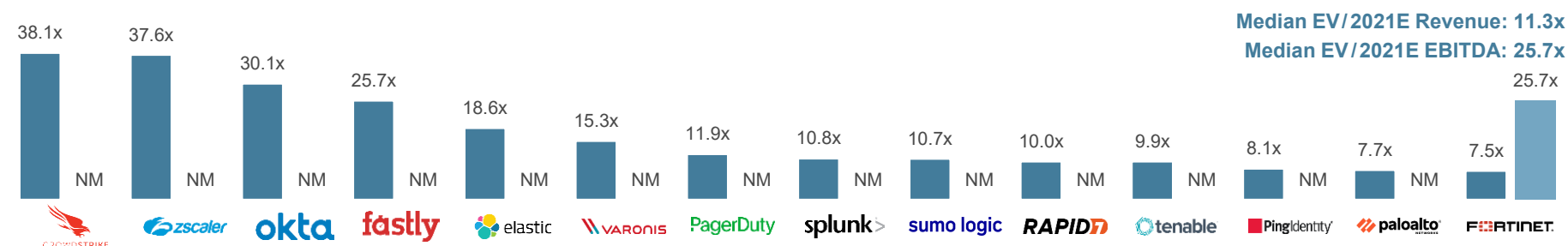


Key Takeaways

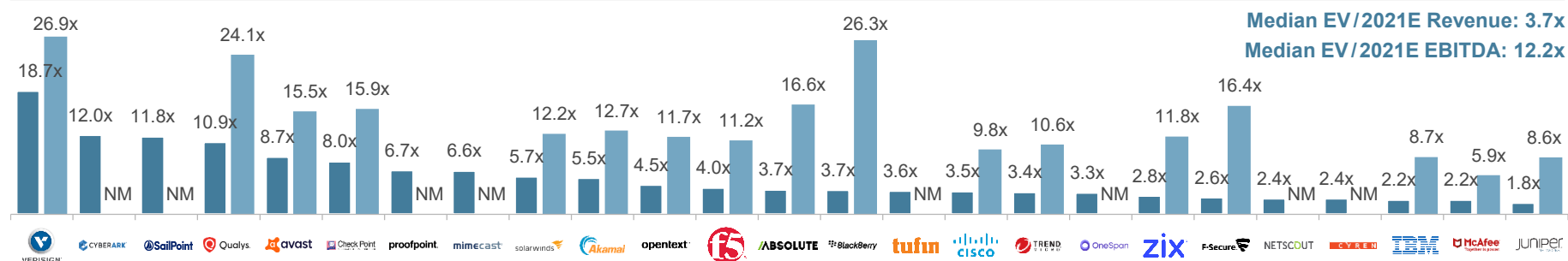
- Valuation multiples for cybersecurity companies have a high correlation with projected revenue growth rates.
- High growth cybersecurity companies (15%+ revenue growth) see an exponential increase in their valuation multiples.
- Low growth (<15% revenue growth) cybersecurity companies are more likely to be evaluated based on profitability.

Public Company Benchmarking: EV/CY 2021E Revenue and EBITDA

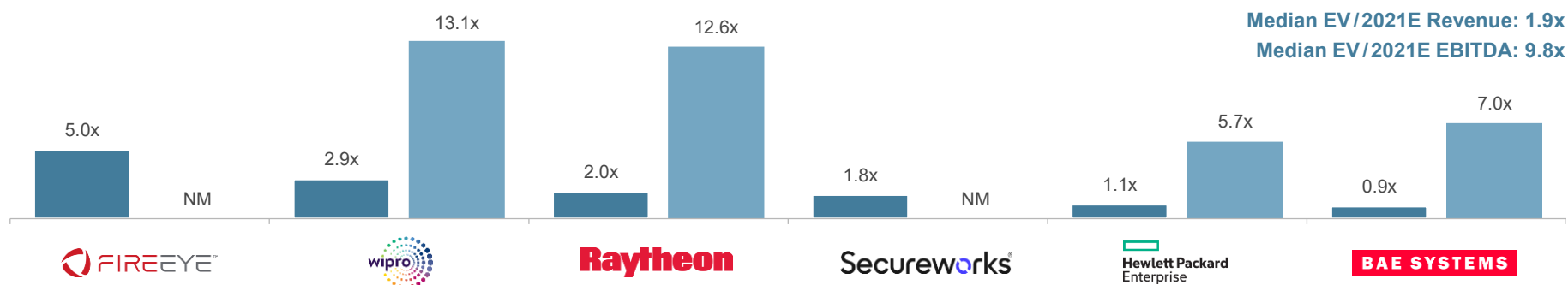
High Growth Cyber



Low Growth Cyber



Security Services



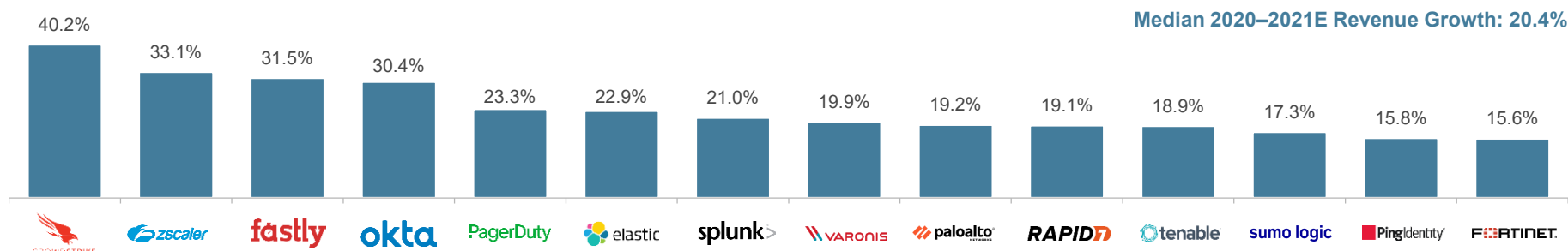
■ EV/2021E Revenue ■ EV/2021E EBITDA

Overall Median: 5.7x

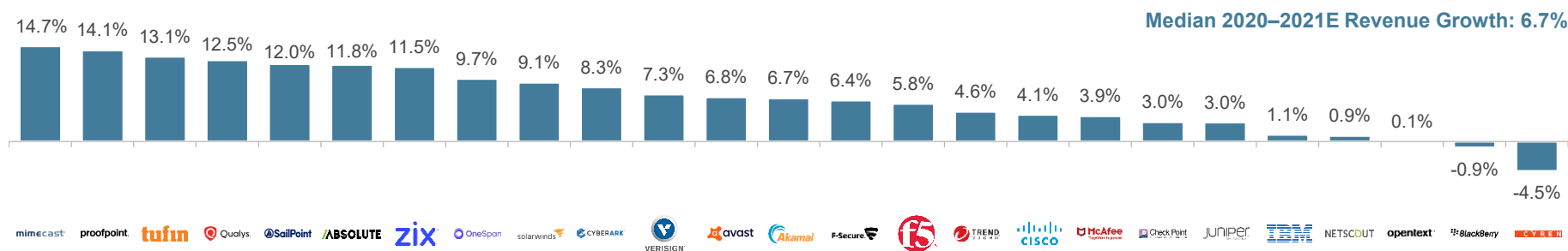
Source: S&P Capital IQ as of December 31, 2020; NM indicates not meaningful or EV/EBITDA >50x.
Sorted by 2020–2021E Revenue Growth.

Public Company Benchmarking: CY 2020–2021E Revenue Growth

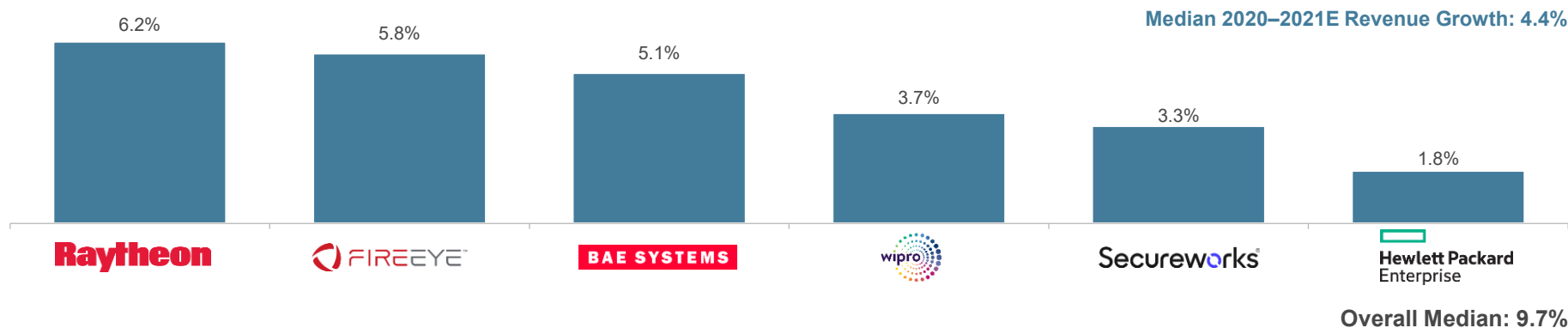
High Growth Cyber



Low Growth Cyber



Security Services



High Growth Cyber Trading Metrics

(\$ in millions)

Company	Stock Price	% of 52-wk High	Equity Mkt Cap	Enterprise Value	EV / Revenue			EV / EBITDA		
					CY 2020E	CY 2021E	CY 2022E	CY 2020E	CY 2021E	CY 2022E
CrowdStrike	\$211.82	93.2%	\$46,869	\$45,851	NA	38.1x	29.1x	NM	NM	NM
Palo Alto Networks	355.39	94.8%	34,559	34,636	9.2x	7.7x	6.6x	NM	NM	29.0x
Okta	254.26	88.5%	33,362	32,335	39.3x	30.1x	23.6x	NM	NM	NM
Splunk	169.89	75.2%	27,524	28,160	13.0x	10.8x	8.5x	NM	NM	NM
Zscaler	199.71	93.9%	27,149	26,311	50.0x	37.6x	29.2x	NM	NM	NM
Fortinet	148.53	96.9%	24,239	22,327	8.7x	7.5x	6.6x	29.6x	25.7x	22.3x
Elastic	146.13	91.4%	13,117	12,454	22.9x	18.6x	15.1x	NM	NM	NM
Fastly	87.37	64.0%	10,013	9,813	33.8x	25.7x	20.0x	NM	NM	NM
Varonis	163.61	90.9%	5,208	5,174	18.4x	15.3x	12.4x	NM	NM	NM
Tenable	52.26	91.7%	5,437	5,155	11.8x	9.9x	8.3x	NM	NM	NM
Rapid 7	90.16	95.3%	4,750	4,825	11.8x	10.0x	8.4x	NM	NM	NM
PagerDuty	41.70	86.4%	3,417	3,107	14.7x	11.9x	9.6x	NM	NM	NM
Sumo Logic	28.58	80.1%	2,907	2,517	12.5x	10.7x	8.8x	NM	NM	NM
Ping Identity	28.64	75.8%	2,330	2,347	9.4x	8.1x	6.8x	NM	NM	NM
Top Quartile			\$27,430	\$27,698	22.9x	24.0x	18.8x	29.6x	25.7x	27.3x
Mean			17,206	16,787	19.7	17.3	13.8	29.6	25.7	25.7
Median			11,565	11,133	13.0	11.3	9.2	29.6	25.7	25.7
1st Quartile			4,865	4,908	11.8	9.9	8.3	29.6	25.7	24.0

Source: S&P Capital IQ as of December 31, 2020; NM indicates not meaningful or EV/EBITDA >30x.
Sorted by Enterprise Value.

Low Growth Cyber Trading Metrics

(\$ in millions)

Company	Stock Price	% of 52-wk High	Equity Mkt Cap	Enterprise Value	EV / Revenue			EV / EBITDA		
					CY 2020E	CY 2021E	CY 2022E	CY 2020E	CY 2021E	CY 2022E
Cisco	\$44.75	89.0%	\$188,925	\$174,669	3.6x	3.5x	3.4x	9.9x	9.8x	10.0x
IBM	125.88	79.3%	112,615	164,823	2.2x	2.2x	2.2x	10.9x	8.7x	8.8x
VeriSign	216.40	97.8%	24,474	25,328	20.0x	18.7x	17.6x	29.1x	26.9x	25.1x
Akamai	104.99	87.5%	17,136	18,771	5.9x	5.5x	5.2x	13.5x	12.7x	11.7x
Check Point	132.91	95.4%	18,222	16,979	8.3x	8.0x	7.8x	16.1x	15.9x	15.7x
OpenText	45.46	95.0%	12,386	14,697	4.5x	4.5x	NA	11.8x	11.7x	NA
F5	175.94	98.8%	10,847	10,224	4.3x	4.0x	3.8x	12.7x	11.2x	NA
Avast	7.34	88.9%	7,548	8,270	9.3x	8.7x	8.2x	16.7x	15.5x	14.6x
Juniper	22.51	85.0%	7,387	7,978	1.8x	1.8x	1.7x	8.8x	8.6x	7.9x
Proofpoint	136.41	99.0%	7,829	7,952	7.6x	6.7x	5.7x	NM	NM	NM
McAfee	16.69	84.4%	7,549	6,604	2.3x	2.2x	2.1x	6.1x	5.9x	5.2x
SolarWinds	14.95	61.4%	4,719	6,360	6.2x	5.7x	5.2x	13.1x	12.2x	11.6x
Trend Micro	57.55	86.1%	8,017	5,922	3.5x	3.4x	3.2x	10.9x	10.6x	10.2x
CyberArk	161.59	96.6%	6,316	5,831	13.0x	12.0x	10.6x	NM	NM	NM
SailPoint	53.24	89.3%	4,868	4,694	13.2x	11.8x	10.1x	NM	NM	NM
Qualys	121.87	96.5%	4,778	4,456	12.3x	10.9x	9.7x	26.5x	24.1x	21.7x
BlackBerry	6.62	67.3%	3,727	3,642	3.7x	3.7x	3.6x	20.1x	26.3x	26.8x
Mimecast	56.84	95.6%	3,660	3,619	7.6x	6.6x	5.6x	NM	NM	24.3x
NetScout	27.42	92.6%	2,014	2,053	2.4x	2.4x	2.3x	NA	NA	NA
OneSpan	20.68	62.0%	829	738	3.6x	3.3x	3.0x	NM	NM	22.2x
F-Secure	4.69	92.7%	742	728	2.7x	2.6x	2.4x	15.8x	16.4x	14.7x
Zix	8.63	91.2%	475	681	3.1x	2.8x	2.5x	13.2x	11.8x	10.9x
Absolute Software	11.89	81.8%	584	464	4.2x	3.7x	NA	16.0x	16.6x	NA
Tufin	12.48	67.9%	455	392	4.1x	3.6x	3.1x	NM	NM	NM
Cyren	1.03	52.3%	63	85	2.3x	2.4x	NA	NM	NM	NA

Top Quartile	\$10,847	\$10,224	7.6x	6.7x	7.3x	16.1x	16.4x	21.8x
Mean	18,247	19,838	6.1	5.6	5.4	14.8	14.4	15.1
Median	6,316	5,922	4.2	3.7	3.7	13.2	12.2	13.1
1st Quartile	2,014	2,053	3.1	2.8	2.6	10.9	10.6	10.1

Source: S&P Capital IQ as of December 31, 2020; NM indicates not meaningful or EV/EBITDA >30x.
Sorted by Enterprise Value.

Security Services Trading Metrics

(\$ in millions)

Company	Stock Price	% of 52-wk High	Equity Mkt Cap	Enterprise Value	EV / Revenue			EV / EBITDA		
					CY 2020E	CY 2021E	CY 2022E	CY 2020E	CY 2021E	CY 2022E
Raytheon	\$71.51	45.1%	\$109,866	\$132,400	2.1x	1.9x	1.8x	13.9x	12.6x	10.6x
HPE	11.85	73.2%	15,375	28,853	1.1x	1.1x	1.0x	6.3x	5.7x	5.4x
BAE Systems	6.67	72.7%	21,697	26,542	1.0x	0.9x	0.9x	7.8x	7.0x	6.7x
Wipro	5.29	98.9%	30,142	25,201	3.0x	2.9x	2.8x	13.8x	13.1x	13.1x
FireEye	23.06	90.3%	5,285	4,972	5.3x	5.0x	4.7x	36.7x	34.2x	29.9x
SecureWorks	14.22	78.0%	1,169	1,012	1.8x	1.7x	1.7x	30.0x	33.0x	23.2x
Top Quartile			\$28,031	\$28,275	2.8x	2.7x	2.6x	25.9x	28.0x	20.7x
Mean			30,589	36,497	2.4	2.3	2.2	18.1	17.6	14.8
Median			18,536	25,872	1.9	1.8	1.7	13.9	12.8	11.9
1st Quartile			7,808	10,029	1.3	1.2	1.2	9.3	8.4	7.7

Source: S&P Capital IQ as of December 31, 2020; NM indicates not meaningful or EV/EBITDA >30x.
Sorted by Enterprise Value.

High Growth Cyber Operating Metrics

(\$ in millions)

Company	Stock Price	Equity Mkt Cap	Enterprise Value	Revenue			EBITDA			Revenue Growth			EBITDA Margin		
				CY 2020E	CY 2021E	CY 2022E	CY 2020E	CY 2021E	CY 2022E	2019-2020E	2020-2021E	2021-2022E	CY 2020E	CY 2021E	CY 2022E
Crow dStrike	\$211.82	\$46,869	\$45,851	NA	\$1,205	\$1,575	\$87	\$123	\$204	NA	NM	30.7%	NA	10.2%	12.9%
Palo Alto Networks	355.39	34,559	34,636	3,751	4,471	5,286	945	1,020	1,195	20.2%	19.2%	18.2%	25.2%	22.8%	22.6%
Okta	254.26	32,918	32,335	823	1,073	1,369	24	30	88	40.4%	30.4%	27.6%	2.9%	2.8%	6.4%
Splunk	169.89	27,475	28,160	2,163	2,617	3,318	(88)	119	527	NM	21.0%	26.8%	NM	4.5%	15.9%
Zscaler	199.71	26,966	26,311	526	700	900	70	103	156	46.2%	33.1%	28.5%	13.4%	14.7%	17.4%
Fortinet	148.53	24,239	22,327	2,567	2,968	3,393	755	867	999	19.1%	15.6%	14.3%	29.4%	29.2%	29.5%
Elastic	146.13	13,100	12,454	544	668	825	(41)	(35)	(1)	41.4%	22.9%	23.4%	NM	NM	NM
Fastly	87.37	10,013	9,813	290	381	490	(0)	(2)	31	44.7%	31.5%	28.4%	NM	NM	6.3%
Varonis	163.61	5,208	5,174	282	338	418	(3)	1	49	10.9%	19.9%	23.8%	NM	0.4%	11.7%
Tenable	52.26	5,437	5,155	437	519	624	30	48	81	23.2%	18.9%	20.0%	6.8%	9.2%	13.0%
Rapid 7	90.16	4,750	4,825	407	485	577	15	29	52	24.6%	19.1%	19.0%	3.6%	6.1%	8.9%
PagerDuty	41.70	3,417	3,107	212	261	324	(16)	(11)	16	27.3%	23.3%	24.0%	NM	NM	4.9%
Sumo Logic	28.58	2,924	2,517	201	235	285	(29)	(38)	(31)	29.4%	17.3%	21.1%	NM	NM	NM
Ping Identity	28.64	2,330	2,347	249	288	344	32	39	44	2.6%	15.8%	19.3%	12.8%	13.7%	12.8%
Top Quartile		\$27,347	\$27,698	\$823	\$1,172	\$1,523	\$61	\$115	\$192	40.6%	23.3%	27.4%	19.3%	14.4%	16.3%
Mean		17,157	16,787	958	1,158	1,409	127	164	243	27.5%	22.1%	23.2%	13.4%	11.4%	13.5%
Median		11,556	11,133	437	594	724	19	35	66	25.9%	19.9%	23.6%	12.8%	9.7%	12.9%
1st Quartile		4,865	4,908	282	349	436	(13)	(1)	34	19.9%	18.9%	19.5%	5.2%	4.9%	8.3%

Source: S&P Capital IQ as of December 31, 2020; NM indicates not meaningful or EV/EBITDA >30x.
Sorted by Enterprise Value.

Low Growth Cyber Operating Metrics

(\$ in millions)

Company	Stock Price	Equity Mkt Cap	Enterprise Value	Revenue			EBITDA			Revenue Growth			EBITDA Margin		
				CY 2020E	CY 2021E	CY 2022E	CY 2020E	CY 2021E	CY 2022E	2019-2020E	2020-2021E	2021-2022E	CY 2020E	CY 2021E	CY 2022E
Cisco	\$44.75	\$188,925	\$174,669	\$47,962	\$49,946	\$51,488	\$17,711	\$17,819	\$17,423	NM	4.1%	3.1%	36.9%	35.7%	33.8%
IBM	125.88	112,615	164,823	73,911	74,718	75,816	15,177	19,036	18,694	NM	1.1%	1.5%	20.5%	25.5%	24.7%
VeriSign	216.40	24,474	25,328	1,264	1,356	1,441	871	943	1,009	2.6%	7.3%	6.3%	68.9%	69.6%	70.0%
Akamai	104.99	17,136	18,771	3,181	3,393	3,589	1,391	1,483	1,608	9.9%	6.7%	5.8%	43.7%	43.7%	44.8%
Check Point	132.91	18,222	16,979	2,058	2,119	2,177	1,053	1,066	1,080	3.2%	3.0%	2.7%	51.2%	50.3%	49.6%
OpenText	45.46	12,386	14,697	3,265	3,267	NA	1,242	1,253	NA	11.2%	0.1%	NA	38.0%	38.4%	NA
F5	175.94	10,847	10,224	2,391	2,531	2,680	804	916	NA	5.4%	5.8%	5.9%	33.6%	36.2%	NA
Avast	7.34	7,548	8,270	890	951	1,013	497	532	567	2.2%	6.8%	6.5%	55.8%	55.9%	56.0%
Juniper	22.51	7,387	7,978	4,416	4,547	4,686	904	926	1,012	NM	3.0%	3.1%	20.5%	20.4%	21.6%
Proofpoint	136.41	7,829	7,952	1,044	1,191	1,403	185	192	257	17.6%	14.1%	17.8%	17.7%	16.1%	18.3%
McAfee	16.69	7,549	6,604	2,870	2,983	3,109	1,082	1,115	1,258	8.9%	3.9%	4.2%	37.7%	37.4%	40.5%
SolarWinds	14.95	4,719	6,360	1,020	1,113	1,212	487	522	550	9.4%	9.1%	9.0%	47.8%	46.9%	45.4%
Trend Micro	57.55	8,017	5,922	1,676	1,754	1,831	543	560	582	10.3%	4.6%	4.4%	32.4%	31.9%	31.8%
CyberArk	161.59	6,316	5,831	449	486	550	90	67	77	3.4%	8.3%	13.2%	20.1%	13.8%	14.0%
SailPoint	53.24	4,868	4,694	356	399	465	36	21	29	23.5%	12.0%	16.6%	10.1%	5.2%	6.3%
Qualys	121.87	4,778	4,456	363	408	460	168	185	206	12.8%	12.5%	12.8%	46.4%	45.3%	44.7%
BlackBerry	6.62	3,727	3,642	996	987	1,018	181	138	136	NM	NM	3.2%	18.2%	14.0%	13.3%
Mimecast	56.84	3,660	3,619	479	549	649	112	112	149	18.2%	14.7%	18.1%	23.4%	20.3%	23.0%
NetScout	27.42	2,014	2,053	845	853	908	NA	NA	NA	NM	0.9%	6.4%	NA	NA	NA
OneSpan	20.68	829	738	205	225	247	9	21	33	NM	9.7%	9.7%	4.4%	9.5%	13.5%
F-Secure	4.69	742	728	267	284	302	46	44	50	9.7%	6.4%	6.1%	17.2%	15.6%	16.5%
Zix	8.63	475	681	218	243	273	52	58	63	25.4%	11.5%	12.6%	23.7%	23.9%	22.9%
Absolute Software	11.89	584	464	111	124	NA	29	28	NA	8.9%	11.8%	NA	26.1%	22.6%	NA
Tufin	12.48	455	392	97	109	126	(21)	(19)	(16)	NM	13.1%	15.2%	NM	NM	NM
Cyren	1.03	63	85	37	35	NA	NA	NA	NA	NM	NM	NA	NM	NM	NA

Top Quartile	\$10,847	\$10,224	\$2,391	\$2,531	\$2,554	\$978	\$1,005	\$1,029	12.8%	11.7%	12.8%	42.3%	42.4%	44.8%
Mean	18,247	19,838	6,015	6,183	7,066	1,854	2,044	2,238	10.7%	7.4%	8.4%	31.6%	30.8%	31.1%
Median	6,316	5,922	996	987	1,115	487	522	403	9.7%	6.8%	6.3%	29.3%	28.7%	24.7%
1st Quartile	2,014	2,053	356	399	486	71	63	74	5.4%	4.0%	4.3%	20.2%	17.2%	17.4%

Security Services Operating Metrics

Operating Metrics

(\$ in millions)

Company	Stock Price	Equity Mkt Cap	Enterprise Value	Revenue			EBITDA			Revenue Growth			EBITDA Margin		
				CY 2020E	CY 2021E	CY 2022E	CY 2020E	CY 2021E	CY 2022E	2019-2020E	2020-2021E	2021-2022E	CY 2020E	CY 2021E	CY 2022E
Raytheon	\$71.51	\$109,866	\$132,400	\$64,146	\$68,104	\$72,764	\$9,505	\$10,519	\$12,463	NM	6.2%	6.8%	14.8%	15.4%	17.1%
HPE	11.85	15,452	28,853	26,766	27,245	27,550	4,582	5,095	5,319	NM	1.8%	1.1%	17.1%	18.7%	19.3%
BAE Systems	6.67	21,688	26,542	27,812	29,233	30,386	3,413	3,781	3,981	14.7%	5.1%	3.9%	12.3%	12.9%	13.1%
Wipro	5.29	30,142	25,201	8,366	8,680	8,911	1,823	1,929	1,918	NM	3.7%	2.7%	21.8%	22.2%	21.5%
FireEye	23.06	5,461	4,972	933	987	1,048	136	145	166	5.0%	5.8%	6.1%	14.5%	14.7%	15.8%
SecureWorks	14.22	1,169	1,012	560	578	612	34	31	44	1.3%	3.3%	5.9%	6.0%	5.3%	7.1%
Top Quartile		\$28,029	\$28,275	\$27,550	\$28,736	\$29,677	\$4,289	\$4,766	\$4,985	9.8%	5.6%	6.1%	16.5%	17.9%	18.8%
Mean		30,630	36,497	21,431	22,471	23,545	3,249	3,583	3,982	7.0%	4.3%	4.4%	14.4%	14.9%	15.7%
Median		18,570	25,872	17,566	17,962	18,231	2,618	2,855	2,950	5.0%	4.4%	4.9%	14.7%	15.1%	16.5%
1st Quartile		7,959	10,029	2,792	2,910	3,014	558	591	604	3.1%	3.4%	3.0%	12.8%	13.4%	13.8%

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