



Cybersecurity Market Update

TECHNOLOGY

2H 2021

Houlihan Lokey + GCA | The Preeminent Global M&A Boutique

Houlihan Lokey completed the acquisition of GCA in December 2021 to create one of the world's leading advisory firms.

THE GLOBAL NO. 1 M&A BOUTIQUE⁽¹⁾



EVERCORE

LAZARD

MOELIS & COMPANY

Jefferies

Rothschild & Co

LEADING POSITIONS ACROSS SECTORS AND GEOGRAPHIES

Based on 2021 announced transaction volume, the combination of Houlihan Lokey and GCA will create the No. 1 Global Technology M&A Advisor, further our leadership in U.S. M&A, and make us a leading advisor across global, European, and Asian M&A.

Global Tech M&A

No. 1 M&A Advisory Global Technology Transactions	
Advisor	Deals
1 Houlihan Lokey	124
2 Goldman Sachs	114
3 JP Morgan	91
4 Morgan Stanley	87
5 William Blair	67

Source: Refinitiv. Excludes accounting firms and brokers.

NO. 1

Global M&A

2021 Investment Banking Rankings All Global Transactions	
Advisor	Deals
1 Houlihan Lokey	549
2 Goldman Sachs & Co	511
3 JP Morgan	508
4 Rothschild & Co	437
5 Morgan Stanley	393

Source: Refinitiv. Excludes accounting firms and brokers.

NO. 1

U.S. M&A

2021 M&A Advisory Rankings All U.S. Transactions	
Advisor	Deals
1 Houlihan Lokey	301
2 Goldman Sachs & Co	285
3 JP Morgan	282
4 Jefferies LLC	199
5 Morgan Stanley	185

Source: Refinitiv.

NO. 1

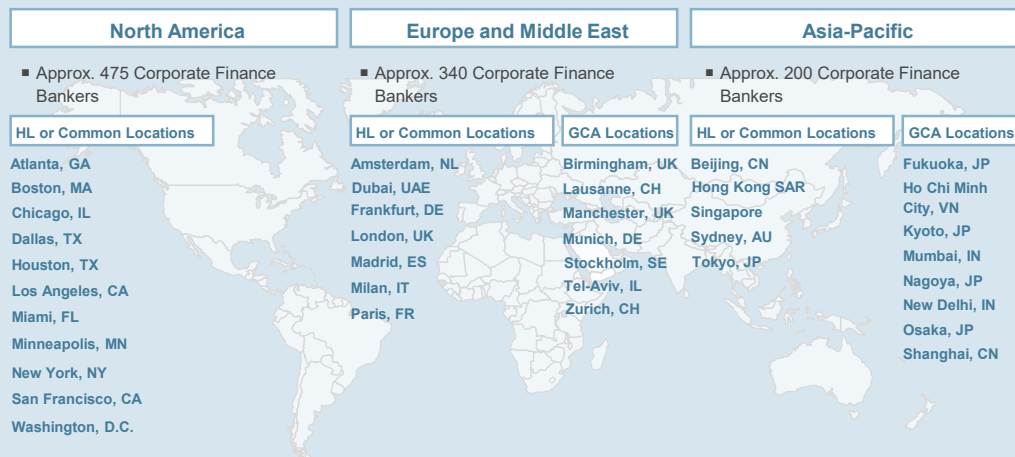
U.S. M&A <\$1B

2021 M&A Advisory Rankings U.S. Transactions Under \$1 Billion	
Advisor	Deals
1 Houlihan Lokey	286
2 Jefferies LLC	169
3 Piper Sandler & Co	164
4 JP Morgan	148
5 William Blair & Co	143

Source: Refinitiv.

NO. 1

EXTENDED GLOBAL REACH WITH MORE THAN 815 CORPORATE FINANCE BANKERS ACROSS ALL MAJOR MARKETS



Founded	1972	2004
Market Capitalization	\$7.2B	\$428M
Annual Revenues	\$1.5B	\$356M
Employees	~1,600	~500
Locations	23 Locations	23 Locations
Description	Global investment bank providing Corporate Finance, Financial Restructuring, and Financial and Valuation Advisory services with a leading position in the industrials space	A global technology-focused investment bank providing M&A advisory and capital markets advisory services

Sources: Refinitiv, Mergermarket.

(1) By market cap. Source: Refinitiv. Excludes accounting firms and brokers.

How Houlihan Lokey Can Help

Our firm is extremely well equipped to help our clients navigate critical milestones of the corporate lifecycle. We respond quickly to challenging situations and are constantly helping clients to analyze, structure, negotiate, and execute the best possible solutions from both a strategic and a financial perspective.

What We Offer

Corporate Finance	
1	Mergers and Acquisitions
2	Capital Markets
	Private Funds Advisory
	Board Advisory Services
Financial Restructuring	
	Company Advisory
	Financial Restructuring
	Distressed M&A
	Liability Management
	Creditor Advisory
Financial and Valuation Advisory	
	Portfolio Valuation and Fund Advisory
	Transaction Opinions
	Corporate Valuation Advisory Services
	Transaction Advisory Services
	Real Estate Valuation and Advisory
	Dispute Resolution Consulting

Mergers and Acquisitions
We are widely recognized as the leading M&A advisor to the mid-cap in general and the technology sector in particular. Our deep expertise across the sector, knowledge of the strategic landscape, and long-standing relationships with all relevant strategic and financial buyers make us the M&A advisor of choice for strategic transactions in the digital media industry.

Equity Financing
We have a market-leading private capital markets platform focused on the placement of solution-oriented capital for a wide range of financing needs. We have differentiated investor relationships and access to the key decision-makers, allowing us to run a bespoke, high-touch, confidential, and efficient process.

Why We're Different

- ✓ Deep Technology Industry Expertise
- ✓ Strong Relationships With the Most Relevant Buyers
- ✓ Solution-Oriented Capital Markets Platform
- ✓ Dominant in Special Situations and Restructuring
- ✓ Senior-Level Commitment and Dedication
- ✓ Superior Work Product/Technical Abilities
- ✓ Creativity, Imagination, Tenacity, and Positivity

Dedicated Team Focused on All Aspects of Cyber...

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



Bobby Wolfe
Director,
Miami



Saif Malik
Director,
New York



Walid Khiari
Managing Director,
San Francisco



Josh Wepman
Managing Director,
New York



Rob Louv
Co-Head U.S.
Technology,
San Francisco



Mark Smith
Director,
Manchester



Malte Abrams
Director,
Frankfurt






















































U.S. Team

European Team

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

...With Highly Relevant Experience

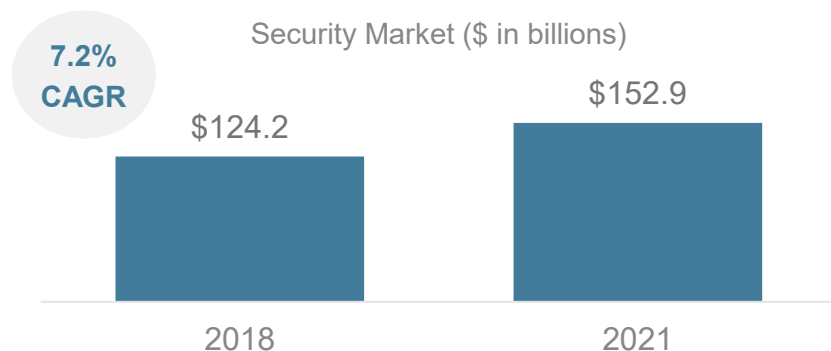
 <p>has received a growth equity investment of \$70,000,000 from</p>  SUMERU EQUITY PARTNERS <p>Financial Advisor</p>	 <p>has received a strategic growth investment from</p>  <p>Sellside Advisor*</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>has invested in</p>  <p>Financing Advisor*</p>	 <p>has sold a majority stake to</p>  <p>Sellside Advisor*</p>
 <p>has invested in</p>  <p>Buyside Advisor*</p>	 <p>has sold a minority stake to</p>  <p>Sellside Advisor*</p>	 <p>has sold a majority stake in</p>  <p>to</p>  <p>Sellside Advisor*</p>	 <p>has entered into a 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>structured equity investment led by</p>  <p>Financing Advisor*</p>	 <p>has acquired</p>  <p>Buyside Advisor</p>	<p>Acquisition Financing</p>  <p>has acquired</p>  <p>Financing 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>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>has received an equity investment from</p>  <p>Financial Advisor</p>	 <p>a portfolio company of</p>  <p>Financial Advisor</p>	<p>The Cyber Business of</p>  <p>has been acquired by</p>  <p>Sellside Advisor</p>
 <p>a wholly owned subsidiary of</p>  <p>has been acquired by</p>  <p>Sellside Advisor</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>has been recapitalized in partnership with</p>  <p>Sellside Advisor</p>	 <p>has been acquired by</p>  <p>Sellside Advisor*</p>	 <p>a wholly owned subsidiary of</p>  <p>has been acquired by</p>  <p>Sellside Advisor</p>

*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 2010 forward.

Strong Momentum in the Broader Security Sector

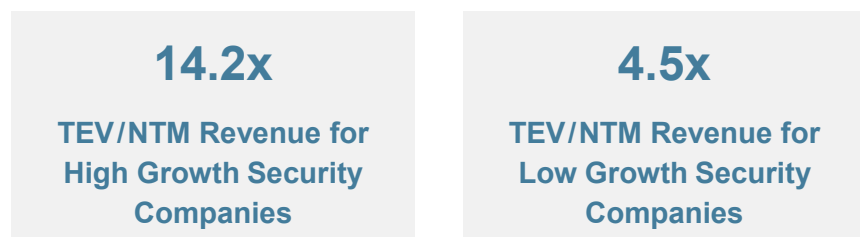
Momentum in the security market is expected to continue, driven by strong public markets and a growing volume of transactions.

General Market Environment



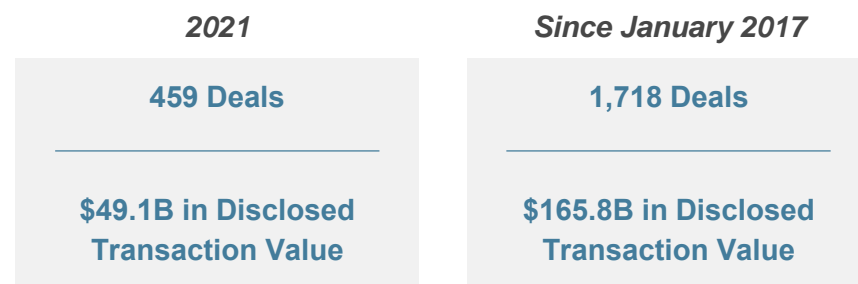
- Digital transformation is placing pressure to invest in security technology and, in particular, cloud security.

Public Market Environment



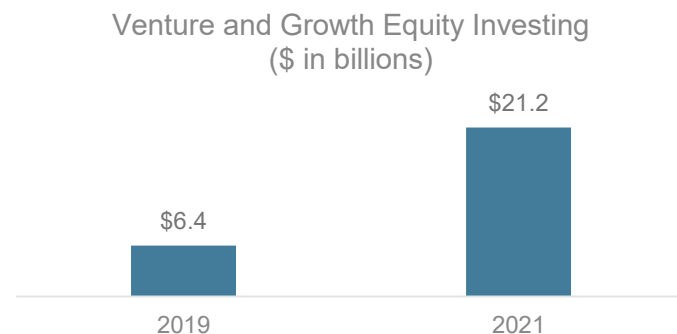
- Public markets continue to reward and prioritize topline growth.
- IPOs in 2021 in the security space included IronNet (August 2021) and Exclusive Networks (September 2021).

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



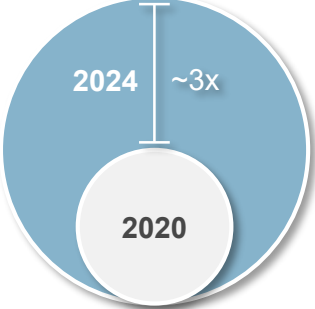
- Emerging segments such as vulnerability assessment, encryption, tokenization, and user and entity behavior analytics continue to attract venture capital funding.

Ransomware Driving Momentum in Data-Centric Tech

Trend	Cyberstorage	Infrastructure SDS	Function Accelerator Cards
Companies to Watch	<p>COHESITY DELL Technologies</p> <p>NUTANIX RACKTOP</p>	<p>DATACORE IBM</p> <p>NetApp® NUTANIX</p> <p>PURESTORAGE® Red Hat</p> <p>SCALITY StorMagic MAKING THE COMPLEX SIMPLE</p> <p>vmware® WEKA</p>	<p>BROADCOM® ETHERNITY NETWORKS</p> <p>FUNGIBLE nebula®</p> <p>NVIDIA® PENSANDO</p> <p>PLIOPS EXTREME DATA PROCESSOR vmware®</p> <p>XILINX</p>

Cyberstorage

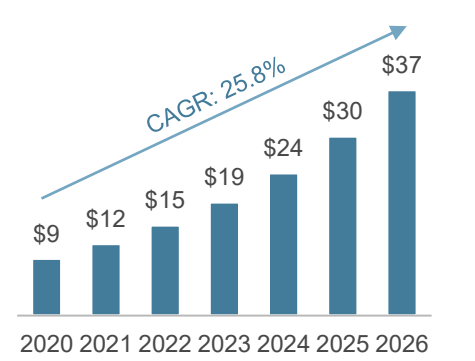
- Cyberstorage provides active defense against cyber attacks on unstructured data through the early detection and blocking of attacks, and it aids in recovery through analytics to pinpoint when an attack started.
- By 2024, large enterprises will triple the unstructured data stored as file or object storage on-premises, at the edge or in the public cloud, compared with 2020.



Infrastructure SDS

- Infrastructure software defined storage (SDS) changes the delivery model and economics of enterprise storage by providing the flexibility to run applications anywhere, on-premises, at the edge, or in the public cloud with consistent storage service across locations.

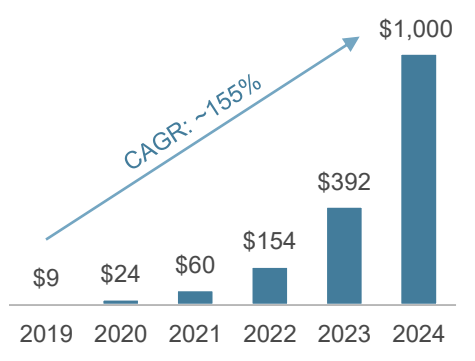
SDS Market Value (\$ in M)



Function Accelerator Cards

- Function accelerator cards (FACs) offload functions from the server and dedicated appliances to improve performance as much as 10% to 50%.
- Vendors are actively and aggressively marketing FACs, which are expected to have explosive near term growth.

FAC Market Value (\$ in M)



Sources: Gartner, Sophos: The State of Ransomware 2021, 451 Research, Cybersecurity Ventures, Barclays.

Select Public Multiples – Forward 12 Months

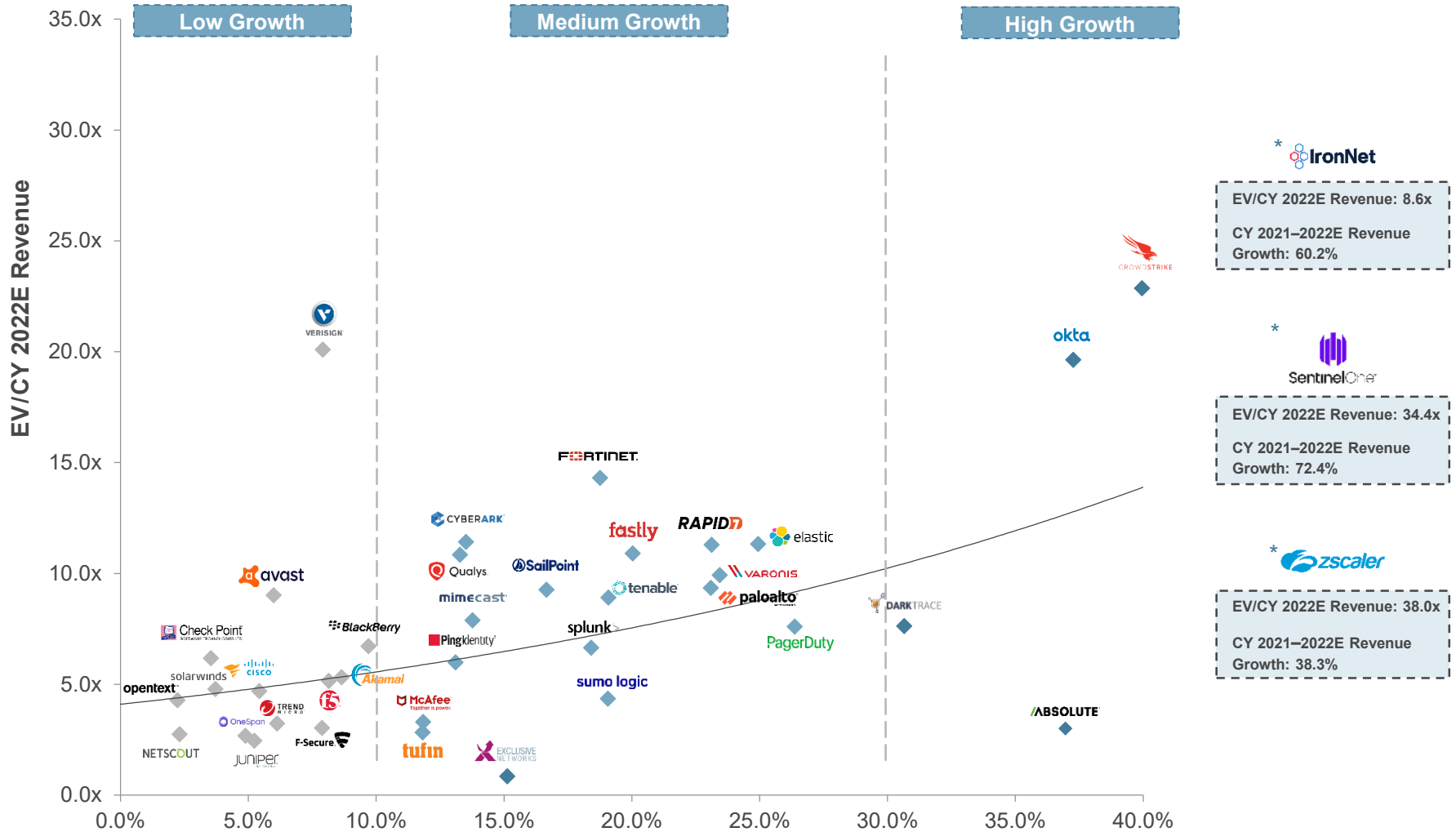
EV/NTM Revenue



Sources: S&P Capital IQ, market data as of February 15, 2022.
 Note: Indices contain public companies on the following pages and are weighted by market capitalization.

Investors Still Pay Up for Growth

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



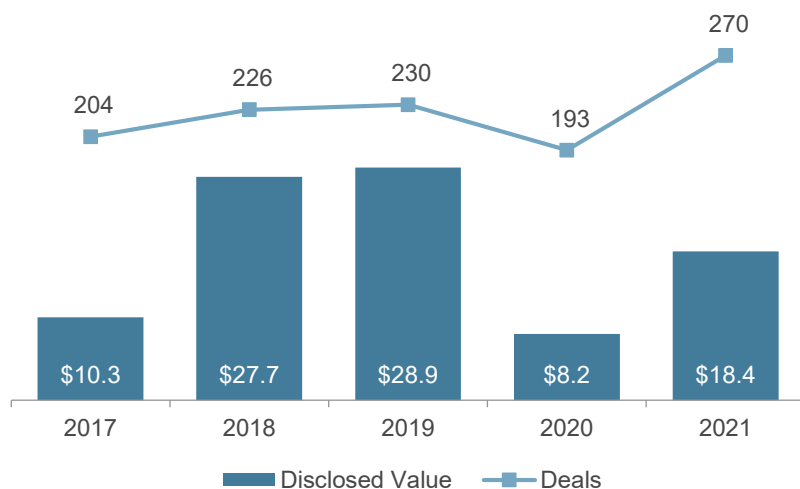
Sources: Trading multiples are based on share price, other market data, and broker consensus future earnings estimates from S&P Capital IQ as of December 31, 2021. All financials calendarized to a December year end.

* Indicates companies are outliers and should not be viewed using the current chart scale.

Strategic M&A Remains an Exciting Exit for Cyber Companies

Cyber Strategic M&A Summary (2017–2021)

(\$ 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 deal value driven by uncertainty caused by COVID-19.
- Strategic activity accelerated in 2H 2021, with 44 total M&A transactions for an aggregate disclosed deal value of \$13.7 billion completed by strategic parties.
- 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
12/08/2021	CLAROTY	MEDIGATE	Premises Network Security	\$400	NA
11/18/2021	GBG	acuant	Premises Network Security	\$736	NA
11/8/2021	opentext	zix	Email Encryption SaaS	\$860	3.5x
10/27/2021	SUSE	NeuVector	CloudTech and DevOps	\$131	NA
10/21/2021	Akamai	Guardicore	Network Management Software	\$630	NA
09/27/2021	PingIdentity	SingularKey	Identity Management Software	NA	NA
09/13/2021	tenable	accurics	Network Security	\$160	~32x
09/13/2021	Kape	ExpressVPN	SSL VPNs	\$936	NA
08/30/2021	Check Point	AVANAN	Anti-Malware	NA	NA
08/19/2021	accenture	NOVETTA	IT Consulting and Outsourcing	\$1,000	NA
08/10/2021	NortonLifeLock	avast	Anti-Virus Software	\$8,100	9.3x
08/9/2021	Qualys	totalcloud	Network Security	NA	NA
07/19/2021	RAPID7	INTSIGHTS	Threat Intelligence	\$335	~12–15x
07/13/2021	Outpost24	Blueliv	Managed Enterprise Security Software	NA	NA
07/12/2021	Microsoft	RISKIQ	Identity Management	\$650	~10x
06/21/2021	knowit	CYBERCOM GROUP	IT Consulting and Outsourcing	\$261	1.3x
05/11/2021	ABSOLUTE	NETMOTION	Mobile VPN Software	\$340	5.7x
03/10/2021	PayPal	CURV	Security Orchestration	~\$200	NA
03/03/2021	okta	auth0	Identity Management	\$6,500	43.3x

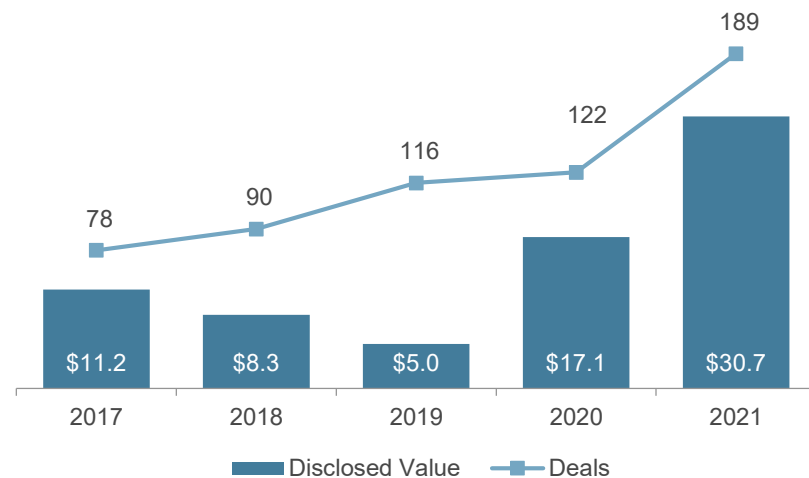
Significant Private Equity Interest for Cyber Transactions (M&A)

Notable Majority Transactions

Date	Acquirer	Target	Subsector	EV \$M	EV/Rev
11/16/2021	Audax Group TEAM CYMRU	Implicity	Surface Attack and Threat Management	NA	NA
10/04/2021	Quest	ONE IDENTITY	Identity Management Software	\$460	~7x
09/16/2021	SVERICA CYTRACOM	OMNINET	Unified Threat Management	NA	NA
09/12/2021	PROVIDENCE EQUITY ARDIAN	MARLINK	Network Security	~\$1,400	NA
08/31/2021	THOMABRAVO	proofpoint.	Enterprise Security Software	\$12,300	~10x
08/17/2021	PERISCOPE EQUITY	CyberMaxx.	Threat Intelligence	NA	NA
08/04/2021	Audax Group	TEAM CYMRU	Data Provider	NA	NA
07/21/2021	Audax Group	FLASHPOINT	Threat Intelligence	\$325	8.1x
06/29/2021	LIVINGBRIDGE	semafone securing data - protecting relationships	Compliance Software	NA	NA
06/24/2021	eurazeo	i-TRACING CYBERSECURITY EXPERT	IT Security Services	\$103	3.5x
06/01/2021	CVC CAPITAL PARTNERS	bip. HERE TO DARE	Consulting Services	\$875	2.4x

Private Equity M&A Summary (2017–2021)

(\$ in billions)



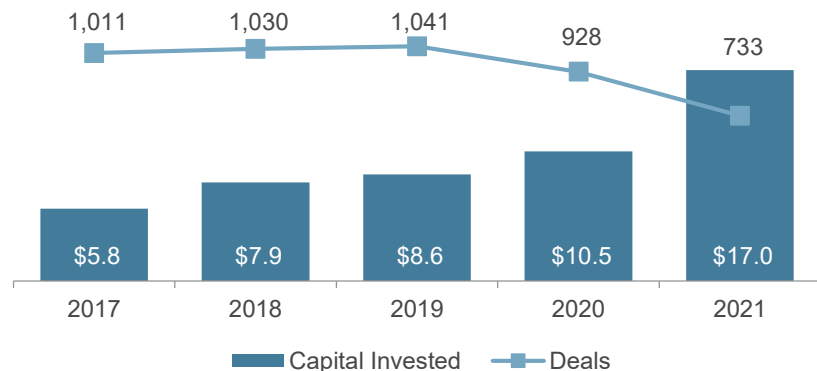
Key Takeaways

- PE activity in the security software space has been robust, with a banner 2021 in terms of disclosed deal value.
- M&A in the cybersecurity space has been robust in 2021 in terms of both disclosed deal value and deal volume.
- Firms are looking to capitalize on the shift toward non-legacy security driven by more advanced threats, expanded attack vectors, and increased network complexity.

Cyber Is Drawing Growth Equity, As Well

Security Private Funding Summary (2017–2021)

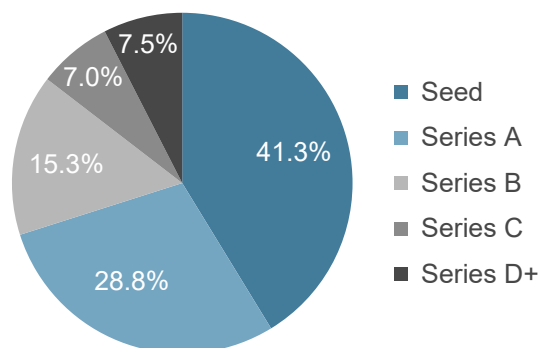
(\$ in billions)



Private Funding Volume by Round (2017–2021)

(\$ 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	\$9	\$34	\$102	\$200	\$1,044

Notable Minority Transactions













Deal Date	Lead Investor	Target	Subsector	Transaction Value (\$M)
12/15/2021	Lightspeed Georgian	noname	Network Management Software	\$135
12/01/2021	SEQUOIA	Fireblocks	Blockchain Security Software	\$400
09/20/2021	THOMABRAVO	INTEL471	Threat Intelligence	NA
09/20/2021	HPS	SAVIYNT	Network Management Software	\$130
08/31/2021	Alkeon Capital Management	Own{backup}	Productivity Software	\$240
08/18/2021	SoftBank Group	UNICO	Enterprise Security Software	\$121
08/02/2021	Triangle Peak Partners	NOZOMI NETWORKS	Enterprise Security Software	\$100
06/24/2021	COATUE	Chainalysis	Blockchain Data Mgmt. Software	\$100
06/24/2021	THOMABRAVO	illumio	Zero Trust Software	\$225
06/23/2021	Owl Rock Capital Corporation	exabeam	Security Info and Event Management	\$200
06/22/2021	Insight Partners General Atlantic	transmit security	Authentication Software	\$543
06/21/2021	Accel TigerGlobal	snyk	DevSecOps Software	\$205
06/9/2021	WARBURG PINCUS	ĀURA	B2C Identity Mgmt. Software	\$150

Cyber Services Attracting Investment and Consolidation

Industry Trends

- The managed security services market has expanded to encompass a vast portfolio of security and risk management software-enabled services.
- Growth in the managed security services market continues to be driven by a staffing and skill shortage, a continuously evolving threat landscape, and an increasing compliance burden at the federal, state, and municipal levels.
- The evolving threat landscape has prompted clients of all sizes to demand a more focused set of managed services that can help identify, investigate, and respond to their unique security threats.
- Both cybersecurity strategics and sponsor-led platforms have prioritized their inorganic growth strategy to keep up with the rapidly changing and distinct priorities of MSSP customers.

Notable Financings

Deal Date	Target	Lead Investor	Round	Inv. Size (\$M)
11/18/2021		 	Series E	\$140
11/09/2021		 <small>ISRAELI GROWTH PARTNERS</small>	Series D	\$54
10/29/2021			Corporate Investment	\$32
08/17/2021	 CyberMaxx.	 PERISCOPE EQUITY	Private Equity	NA
07/12/2021	 NEOSECURE <small>SABIOS DE SEGURIDAD</small>	 PATRIA	Private Equity	NA
03/24/2021	 Bridewell CONSULTING	 gcp	Development Capital	\$25

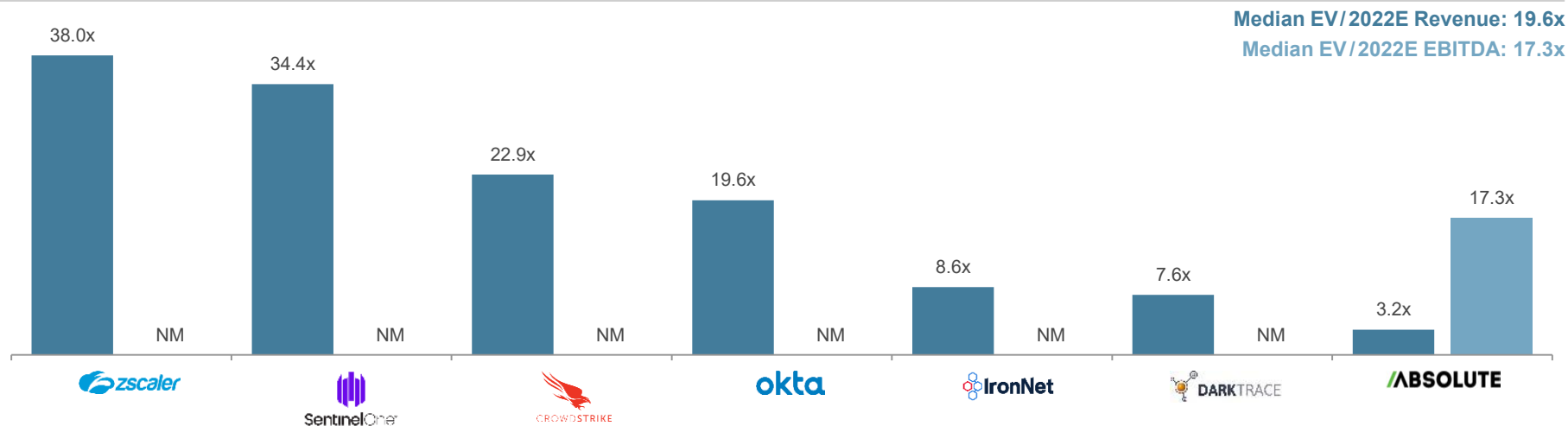
Notable Acquisitions

Deal Date	Acquirer	Target	EV \$M	EV / Rev
12/31/2021			\$230	NA
12/22/2021			NA	NA
12/01/2021			\$114	NA
09/29/2021			NA	NA
08/25/2021			NA	NA
06/29/2021			NA	NA
06/15/2021			NA	NA
06/15/2021			NA	NA
04/29/2021			NA	NA
04/12/2021			NA	NA
03/31/2021			NA	NA
03/30/2021	 A Logically Company		NA	NA

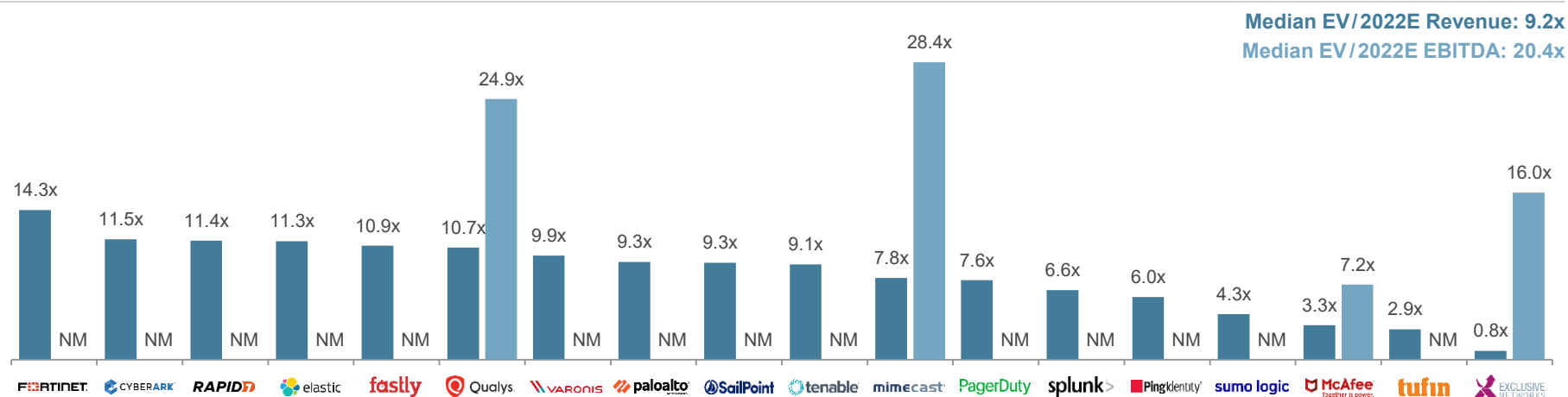
Public Company Benchmarking: EV/CY 2022E Revenue and EBITDA

■ EV/2022E Revenue ■ EV/2022E EBITDA

High Growth Cyber (30%+ Revenue Growth)



Medium Growth Cyber (>10% and <30% Revenue Growth)



Source: Trading multiples are based on share price, other market data, and broker consensus future earnings estimates from S&P Capital IQ as of December 31, 2021. All financials calendarized to a December year end.; NM indicates not meaningful or EV/EBITDA >50x.

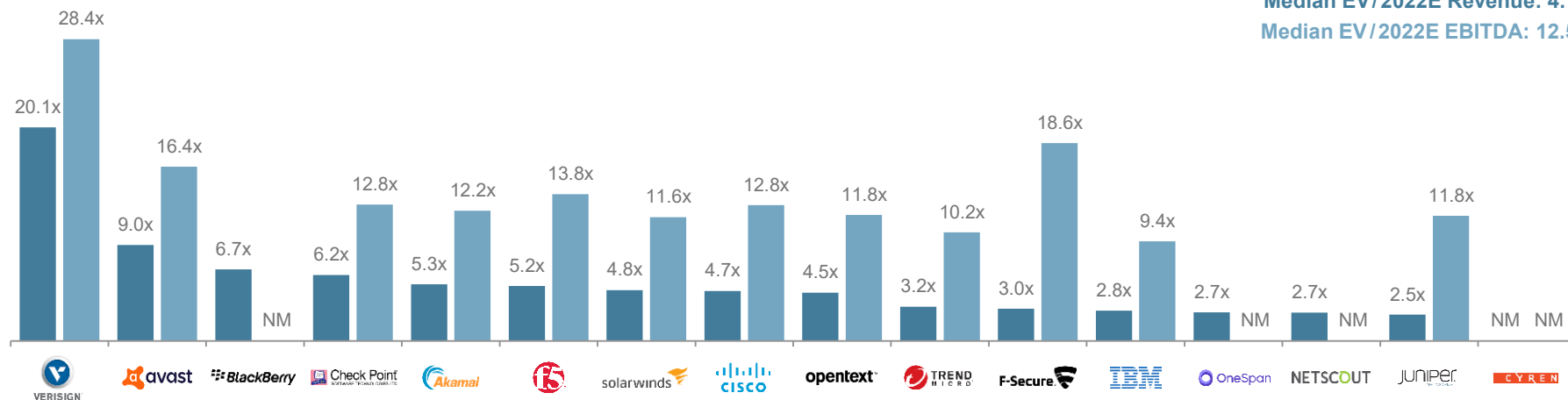
Sorted by EV/2022E Revenue.

Public Company Benchmarking: EV/CY 2022E Revenue and EBITDA

■ EV/2022E Revenue ■ EV/2022E EBITDA

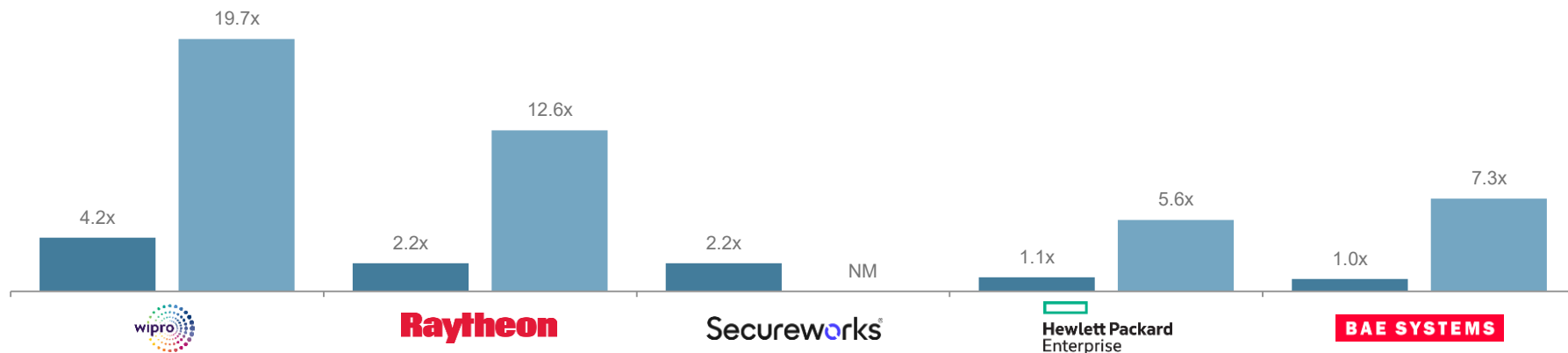
Low Growth Cyber (<10% Revenue Growth)

Median EV/2022E Revenue: 4.7x
Median EV/2022E EBITDA: 12.5x



Security Services

Median EV/2022E Revenue: 2.2x
Median EV/2022E EBITDA: 9.9x

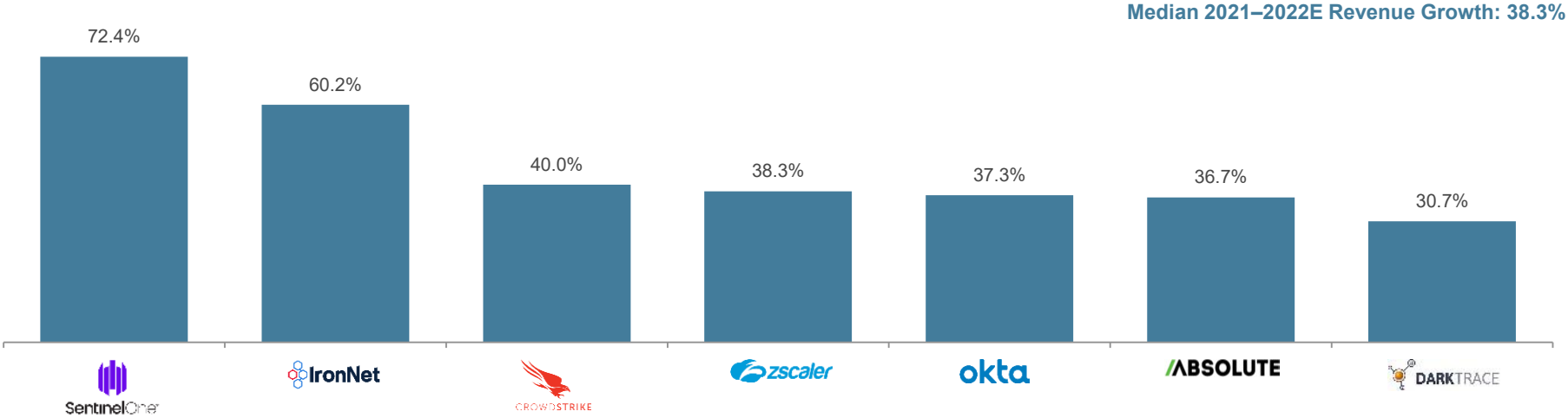


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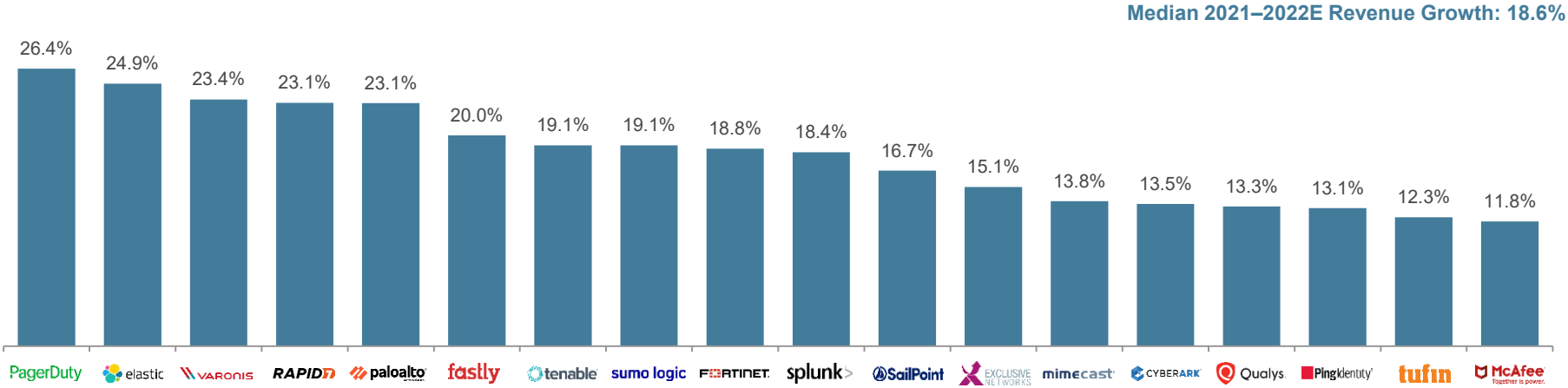
Sorted by EV/2022E Revenue.

Public Company Benchmarking: CY 2021–2022E Revenue Growth

High Growth Cyber (30%+ Revenue Growth)



Medium Growth Cyber (>10% and <30% Revenue Growth)

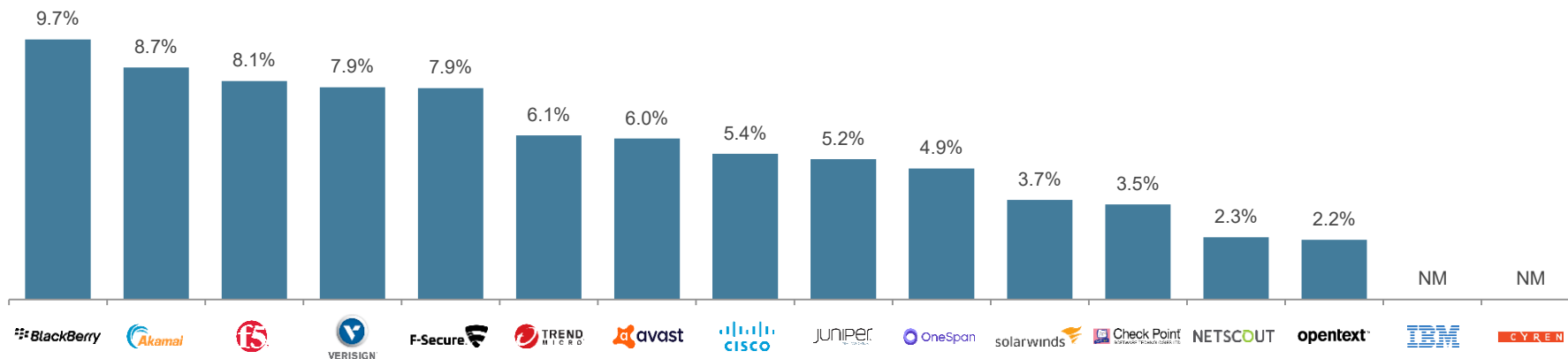


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Public Company Benchmarking: CY 2021–2022E Revenue Growth

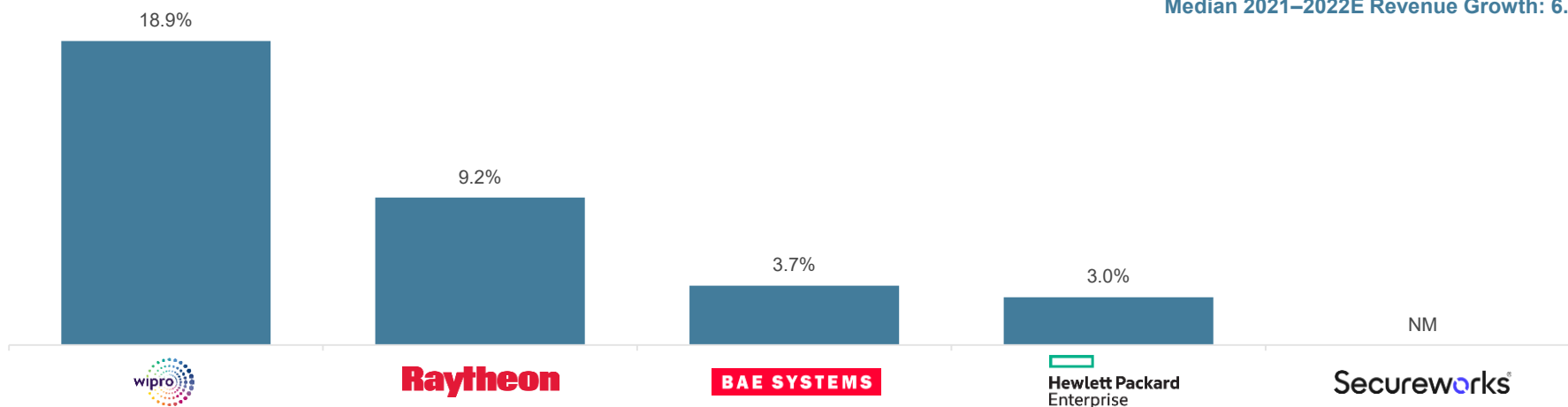
Low Growth Cyber (<10% Revenue Growth)

Median 2021–2022E Revenue Growth: 5.7%



Security Services

Median 2021–2022E Revenue Growth: 6.4%



Source: Trading multiples are based on share price, other market data, and broker consensus future earnings estimates from S&P Capital IQ as of December 31, 2021. All financials calendarized to a December year end.; NM indicates not meaningful or EV/EBITDA >50x.

Sorted by 2021–2022E Revenue Growth.

High Growth Cyber Trading Metrics

(\$ in millions)

Company	Stock Price	% of 52-wk High	Equity Mkt Cap	Enterprise Value	EV / Revenue			EV / EBITDA		
					CY 2021E	CY 2022E	CY 2023E	CY 2021E	CY 2022E	CY 2023E
CrowdStrike	\$204.75	68.6%	\$46,969	\$45,826	32.0x	22.9x	17.2x	NM	NM	NM
Zscaler	321.33	85.4%	45,012	44,406	NM	38.0x	29.0x	NM	NM	NM
Okta	224.17	76.2%	34,868	34,403	26.9x	19.6x	14.6x	NM	NM	NM
SentinelOne	50.49	64.3%	13,476	11,841	NM	34.4x	20.8x	NM	NM	NM
Darktrace	5.69	41.9%	3,657	3,344	10.0x	7.6x	5.6x	NM	NM	NM
Absolute Software	9.37	47.4%	472	685	4.4x	3.2x	2.8x	18.0x	17.3x	13.5x
IronNet	4.20	8.8%	231	361	13.8x	8.6x	4.4x	NM	NM	NM
Top Quartile			\$39,940	\$39,405	26.9x	28.6x	19.0x	18.0x	17.3x	13.5x
Mean			20,669	20,124	17.4	19.2	13.5	18.0	17.3	13.5
Median			13,476	11,841	13.8	19.6	14.6	18.0	17.3	13.5
1st Quartile			2,065	2,015	10.0	8.1	5.0	18.0	17.3	13.5

Source: Trading multiples are based on share price, other market data, and broker consensus future earnings estimates from S&P Capital IQ as of December 31, 2021. All financials calendarized to a December year end.; NM indicates not meaningful, not disclosed, or EV/EBITDA >30x.

Sorted by Enterprise Value.

Medium Growth Cyber Trading Metrics

(\$ in millions)

Company	Stock Price	% of 52-wk High	Equity Mkt Cap	Enterprise Value	EV / Revenue			EV / EBITDA		
					CY 2021E	CY 2022E	CY 2023E	CY 2021E	CY 2022E	CY 2023E
Fortinet	\$359.40	96.7%	\$58,779	\$56,712	17.0x	14.3x	12.1x	NM	NM	NM
Palo Alto Networks	556.76	97.2%	54,934	55,444	11.5x	9.3x	7.7x	NM	NM	NM
Splunk	115.72	64.9%	18,375	20,068	7.9x	6.6x	5.5x	NM	NM	NM
Elastic	123.09	64.8%	11,400	11,113	14.1x	11.3x	8.9x	NM	NM	NM
Rapid 7	117.69	81.2%	6,679	7,417	14.0x	11.4x	9.4x	NM	NM	NM
McAfee	25.79	78.6%	10,547	6,919	3.7x	3.3x	3.0x	8.2x	7.2x	6.0x
CyberArk	173.28	85.9%	6,928	6,483	13.1x	11.5x	9.6x	NM	NM	NM
Tenable	55.07	94.2%	5,999	5,827	10.9x	9.1x	7.6x	NM	NM	NM
Mimecast	79.57	93.1%	5,325	5,095	8.9x	7.8x	7.1x	NM	28.4x	24.7x
Qualys	137.22	92.2%	5,337	4,971	12.1x	10.7x	9.5x	26.2x	24.9x	22.3x
Varonis	48.78	64.8%	5,245	4,730	12.3x	9.9x	8.1x	NM	NM	NM
Fastly	35.45	28.9%	4,165	4,572	13.1x	10.9x	9.4x	NM	NM	NM
SailPoint	48.34	75.3%	4,508	4,506	10.8x	9.3x	7.7x	NM	NM	NM
PagerDuty	34.75	59.5%	2,988	2,751	9.6x	7.6x	6.2x	NM	NM	NM
Exclusive Networks	21.45	88.5%	2,559	2,667	1.0x	0.8x	0.8x	17.9x	16.0x	14.2x
Ping Identity	22.88	61.5%	1,912	1,999	6.8x	6.0x	5.1x	NM	NM	NM
Sumo Logic	13.56	29.2%	1,519	1,238	5.2x	4.3x	3.7x	NM	NM	NM
Tufin	10.55	52.5%	399	357	3.3x	2.9x	2.7x	NM	NM	NM

Top Quartile	\$9,642	\$7,292	12.9x	10.9x	9.3x	22.1x	25.8x	22.9x
Mean	11,533	11,270	9.7	8.2	6.9	17.4	19.1	16.8
Median	5,331	5,033	10.8	9.2	7.7	17.9	20.4	18.2
1st Quartile	3,282	3,190	7.0	6.2	5.2	13.0	13.8	12.1

Source: Trading multiples are based on share price, other market data, and broker consensus future earnings estimates from S&P Capital IQ as of December 31, 2021. All financials calendarized to a December year end.; NM indicates not meaningful, not disclosed, 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 2021E	CY 2022E	CY 2023E	CY 2021E	CY 2022E	CY 2023E
Cisco	\$63.37	98.6%	\$267,270	\$254,607	4.9x	4.7x	4.5x	13.3x	12.8x	12.3x
IBM	133.66	87.5%	120,148	167,756	2.4x	2.8x	2.6x	9.2x	9.4x	8.5x
VeriSign	253.82	98.8%	28,052	28,774	21.7x	20.1x	18.2x	NM	28.4x	25.1x
Akamai	117.04	93.7%	19,017	19,945	5.8x	5.3x	4.9x	12.9x	12.2x	11.2x
OpenText	47.48	85.9%	12,807	15,875	4.6x	4.5x	NM	12.5x	11.8x	NM
F5	244.71	98.3%	14,863	14,823	5.6x	5.2x	4.8x	15.7x	13.8x	12.3x
Check Point	116.56	84.8%	15,188	13,812	6.4x	6.2x	6.0x	13.0x	12.8x	12.8x
Juniper	35.71	99.4%	11,499	12,203	2.6x	2.5x	2.4x	12.6x	11.8x	11.4x
Avast	8.22	98.0%	8,463	9,050	9.6x	9.0x	8.4x	17.4x	16.4x	15.4x
Trend Micro	55.50	92.5%	7,756	5,589	3.4x	3.2x	3.0x	10.2x	10.2x	9.7x
BlackBerry	9.34	32.8%	5,358	5,420	7.4x	6.7x	6.9x	NM	NM	NM
SolarWinds	14.19	38.0%	2,257	3,542	5.0x	4.8x	4.6x	11.8x	11.6x	10.9x
NetScout	33.08	94.9%	2,442	2,307	2.7x	2.7x	2.6x	NM	NM	NM
F-Secure	5.65	89.8%	894	879	3.3x	3.0x	2.8x	21.7x	18.6x	15.9x
OneSpan	16.93	58.0%	676	591	2.8x	2.7x	2.5x	NM	NM	NM
Cyren	5.84	18.3%	26	37	NM	NM	NM	NM	NM	NM

Top Quartile	\$16,145	\$16,893	6.1x	5.8x	5.7x	14.5x	14.4x	14.1x
Mean	32,295	34,701	5.9	5.6	5.3	13.7	14.1	13.2
Median	9,981	10,627	4.9	4.7	4.5	12.9	12.5	12.3
1st Quartile	2,396	3,234	3.0	2.9	2.6	12.1	11.7	11.0

Source: Trading multiples are based on share price, other market data, and broker consensus future earnings estimates from S&P Capital IQ as of December 31, 2021. All financials calendarized to a December year end.; NM indicates not meaningful, not disclosed, 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 2021E	CY 2022E	CY 2023E	CY 2021E	CY 2022E	CY 2023E
Raytheon	\$86.06	93.2%	\$129,441	\$154,740	2.4x	2.2x	2.0x	14.9x	12.6x	11.0x
Wipro	9.60	96.7%	52,470	49,965	5.0x	4.2x	3.8x	22.4x	19.7x	18.1x
HPE	15.77	94.2%	20,444	31,863	1.1x	1.1x	1.1x	6.0x	5.6x	5.4x
BAE Systems	7.44	91.4%	24,114	28,822	1.0x	1.0x	0.9x	7.7x	7.3x	6.9x
SecureWorks	15.97	59.4%	1,345	1,164	2.2x	2.2x	2.1x	NM	NM	NM

Top Quartile			\$52,470	\$49,965	2.4x	2.2x	2.1x	16.7x	14.4x	12.8x
Mean			45,563	53,311	2.3	2.1	2.0	12.7	11.3	10.4
Median			24,114	31,863	2.2	2.2	2.0	11.3	9.9	9.0
1st Quartile			20,444	28,822	1.1	1.1	1.1	7.3	6.8	6.5

Source: Trading multiples are based on share price, other market data, and broker consensus future earnings estimates from S&P Capital IQ as of December 31, 2021. All financials calendarized to a December year end.; NM indicates not meaningful, not disclosed, 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 2021E	CY 2022E	CY 2023E	CY 2021E	CY 2022E	CY 2023E	2020-2021E	2021-2022E	2022-2023E	CY 2021E	CY 2022E	CY 2023E
CrowdStrike	\$204.75	\$46,969	\$45,826	\$1,432	\$2,004	\$2,660	\$237	\$334	\$501	63.8%	40.0%	32.7%	16.6%	16.6%	18.8%
Zscaler	321.33	45,012	44,406	845	1,169	1,529	122	166	256	57.7%	38.3%	30.8%	14.4%	14.2%	16.7%
Okta	224.17	34,868	34,403	1,277	1,753	2,351	(38)	(27)	110	52.9%	37.3%	34.1%	NM	NM	4.7%
SentinelOne	50.49	13,476	11,841	200	345	570	(163)	(163)	(52)	114.8%	72.4%	65.5%	NM	NM	NM
Darktrace	5.69	3,657	3,344	336	439	594	17	14	34	43.2%	30.7%	35.3%	5.1%	3.1%	5.8%
Absolute Software	9.37	472	685	156	214	248	38	39	51	40.2%	36.7%	15.9%	24.3%	18.5%	20.5%
IronNet	4.20	231	361	26	42	82	(69)	(75)	NA	NM	60.2%	96.1%	NM	NM	NM

Top Quartile	\$39,940	\$39,405	\$1,061	\$1,461	\$1,940	\$80	\$103	\$219	62.3%	50.1%	50.4%	18.5%	17.1%	18.8%
Mean	20,669	20,124	610	852	1,148	21	41	150	62.1%	45.1%	44.4%	15.1%	13.1%	13.3%
Median	13,476	11,841	336	439	594	17	14	80	55.3%	38.3%	34.1%	15.5%	15.4%	16.7%
1st Quartile	2,065	2,015	178	279	409	(54)	(51)	38	45.6%	37.0%	31.8%	12.1%	11.4%	5.8%

Source: Trading multiples are based on share price, other market data, and broker consensus future earnings estimates from S&P Capital IQ as of December 31, 2021. All financials calendarized to a December year end.; NM indicates not meaningful, not disclosed, or EV/EBITDA >30x.

Sorted by Enterprise Value.

Medium Growth Cyber Operating Metrics

(\$ in millions)

Company	Stock Price	Equity Mkt Cap	Enterprise Value	Revenue			EBITDA			Revenue Growth			EBITDA Margin		
				CY 2021E	CY 2022E	CY 2023E	CY 2021E	CY 2022E	CY 2023E	2020-2021E	2021-2022E	2022-2023E	CY 2021E	CY 2022E	CY 2023E
Fortinet	\$359.40	\$58,779	\$56,712	\$3,339	\$3,966	\$4,669	\$947	\$1,101	\$1,337	28.7%	18.8%	17.7%	28.3%	27.8%	28.6%
Palo Alto Networks	556.76	54,934	55,444	4,822	5,936	7,166	1,123	1,359	1,570	27.5%	23.1%	20.7%	23.3%	22.9%	21.9%
Splunk	115.72	18,375	20,068	2,550	3,020	3,680	(287)	(112)	254	14.4%	18.4%	21.9%	NM	NM	6.9%
Elastic	123.09	11,400	11,113	786	982	1,249	6	6	76	41.7%	24.9%	27.2%	0.8%	0.6%	6.1%
Rapid 7	117.69	6,679	7,417	530	652	790	25	50	70	28.7%	23.1%	21.1%	4.8%	7.7%	8.9%
McAfee	25.79	10,547	6,919	1,874	2,096	2,316	849	963	1,144	20.3%	11.8%	10.5%	45.3%	46.0%	49.4%
CyberArk	173.28	6,928	6,483	496	563	675	31	4	40	6.8%	13.5%	19.8%	6.2%	0.6%	5.9%
Tenable	55.07	5,999	5,827	537	639	763	59	75	105	21.9%	19.1%	19.3%	11.0%	11.7%	13.8%
Mimecast	79.57	5,325	5,095	574	653	714	160	179	206	19.1%	13.8%	9.4%	27.9%	27.4%	28.8%
Qualys	137.22	5,337	4,971	410	464	522	189	200	223	12.9%	13.3%	12.5%	46.2%	43.0%	42.7%
Varonis	48.78	5,245	4,730	386	476	581	33	51	86	31.8%	23.4%	21.9%	8.4%	10.8%	14.9%
Fastly	35.45	4,165	4,572	349	419	486	(35)	(28)	(9)	20.1%	20.0%	15.9%	NM	NM	NM
SailPoint	48.34	4,508	4,506	417	487	588	9	1	30	14.2%	16.7%	20.8%	2.2%	0.3%	5.1%
PagerDuty	34.75	2,988	2,751	286	362	443	(16)	(2)	23	34.2%	26.4%	22.3%	NM	NM	5.2%
Exclusive Networks	21.45	2,559	2,667	2,763	3,181	3,554	149	167	188	19.4%	15.1%	11.7%	5.4%	5.3%	5.3%
Ping Identity	22.88	1,912	1,999	295	334	395	30	39	55	21.2%	13.1%	18.4%	10.1%	11.6%	13.9%
Sumo Logic	13.56	1,519	1,238	239	285	333	(44)	(48)	(40)	18.2%	19.1%	16.7%	NM	NM	NM
Tufin	10.55	399	357	109	123	133	(23)	(24)	NA	8.5%	12.3%	8.4%	NM	NM	NM
Top Quartile		\$9,642	\$7,292	\$1,602	\$1,818	\$2,049	\$157	\$176	\$223	28.4%	22.3%	21.0%	27.9%	27.4%	25.3%
Mean		11,533	11,270	1,154	1,369	1,614	178	221	315	21.6%	18.1%	17.6%	16.9%	16.6%	17.2%
Median		5,331	5,033	513	601	695	30	45	86	20.2%	18.6%	18.9%	10.1%	11.6%	13.8%
1st Quartile		3,282	3,190	358	431	495	(10)	(1)	40	15.3%	13.6%	13.4%	5.4%	5.3%	6.0%

Source: Trading multiples are based on share price, other market data, and broker consensus future earnings estimates from S&P Capital IQ as of December 31, 2021. All financials calendarized to a December year end.; NM indicates not meaningful, not disclosed, 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 2021E	CY 2022E	CY 2023E	CY 2021E	CY 2022E	CY 2023E	2020-2021E	2021-2022E	2022-2023E	CY 2021E	CY 2022E	CY 2023E
Cisco	\$63.37	\$267,270	\$254,607	\$51,483	\$54,279	\$57,038	\$19,111	\$19,943	\$20,646	7.2%	5.4%	5.1%	37.1%	36.7%	36.2%
IBM	133.66	120,148	167,756	70,658	59,148	65,233	18,219	17,917	19,747	NM	NM	10.3%	25.8%	30.3%	30.3%
VeriSign	253.82	28,052	28,774	1,328	1,433	1,578	933	1,014	1,146	5.0%	7.9%	10.1%	70.3%	70.8%	72.6%
Akamai	117.04	19,017	19,945	3,456	3,755	4,063	1,550	1,629	1,778	8.1%	8.7%	8.2%	44.9%	43.4%	43.8%
OpenText	47.48	12,807	15,875	3,431	3,507	NA	1,274	1,340	NA	3.9%	2.2%	NM	37.1%	38.2%	NM
F5	244.71	14,863	14,823	2,656	2,872	3,110	946	1,074	1,204	10.4%	8.1%	8.3%	35.6%	37.4%	38.7%
Check Point	116.56	15,188	13,812	2,154	2,230	2,301	1,061	1,077	1,077	4.3%	3.5%	3.2%	49.3%	48.3%	46.8%
Juniper	35.71	11,499	12,203	4,704	4,950	5,139	969	1,038	1,069	5.8%	5.2%	3.8%	20.6%	21.0%	20.8%
Avast	8.22	8,463	9,050	947	1,004	1,072	521	553	587	6.1%	6.0%	6.8%	55.0%	55.0%	54.8%
Trend Micro	55.50	7,756	5,589	1,634	1,734	1,833	548	548	574	NM	6.1%	5.7%	33.6%	31.6%	31.3%
BlackBerry	9.34	5,358	5,420	736	807	785	(4)	(36)	(83)	NM	9.7%	NM	NM	NM	NM
SolarWinds	14.19	2,257	3,542	715	741	775	300	305	326	NM	3.7%	4.5%	42.0%	41.1%	42.1%
NetScout	33.08	2,442	2,307	849	869	900	NA	NA	NA	0.2%	2.3%	3.6%	NM	NM	NM
F-Secure	5.65	894	879	269	290	311	41	47	55	NM	7.9%	7.1%	15.1%	16.3%	17.8%
OneSpan	16.93	676	591	211	221	237	(7)	(2)	1	NM	4.9%	7.0%	NM	NM	0.2%
Cyren	5.84	26	37	NA	NA	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM

Top Quartile	\$16,145	\$16,893	\$3,443	\$3,631	\$3,824	\$1,221	\$1,274	\$1,204	7.2%	7.9%	8.2%	46.0%	44.6%	44.5%
Mean	32,295	34,701	9,682	9,189	10,313	3,247	3,318	3,702	5.7%	5.8%	6.4%	38.9%	39.2%	36.3%
Median	9,981	10,627	1,634	1,734	1,706	939	1,026	1,069	5.8%	5.7%	6.8%	37.1%	37.8%	37.5%
1st Quartile	2,396	3,234	792	838	814	355	366	326	4.3%	4.0%	4.5%	31.6%	31.3%	27.9%

Source: Trading multiples are based on share price, other market data, and broker consensus future earnings estimates from S&P Capital IQ as of December 31, 2021. All financials calendarized to a December year end.; NM indicates not meaningful, not disclosed, or EV/EBITDA >30x.

Sorted by Enterprise Value.

Security Services Operating Metrics

(\$ in millions)

Company	Stock Price	Equity Mkt Cap	Enterprise Value	Revenue			EBITDA			Revenue Growth			EBITDA Margin		
				CY 2021E	CY 2022E	CY 2023E	CY 2021E	CY 2022E	CY 2023E	2020-2021E	2021-2022E	2022-2023E	CY 2021E	CY 2022E	CY 2023E
Raytheon	\$86.06	\$129,441	\$154,740	\$64,667	\$70,603	\$75,702	\$10,412	\$12,275	\$14,061	14.3%	9.2%	7.2%	16.1%	17.4%	18.6%
Wipro	9.60	52,470	49,965	10,001	11,895	13,209	2,229	2,531	2,758	18.9%	18.9%	11.1%	22.3%	21.3%	20.9%
HPE	15.77	20,444	31,863	27,986	28,820	29,805	5,320	5,698	5,919	4.2%	3.0%	3.4%	19.0%	19.8%	19.9%
BAE Systems	7.44	24,114	28,822	29,031	30,105	31,069	3,734	3,973	4,165	10.3%	3.7%	3.2%	12.9%	13.2%	13.4%
SecureWorks	15.97	1,345	1,164	537	532	560	10	(3)	(1)	NM	NM	5.2%	1.9%	NM	NM

Top Quartile	\$52,470	\$49,965	\$29,031	\$30,105	\$31,069	\$5,320	\$5,698	\$5,919	15.4%	11.6%	7.2%	19.0%	20.1%	20.1%
Mean	45,563	53,311	26,444	28,391	30,069	4,341	4,895	5,380	11.9%	8.7%	6.0%	14.4%	17.9%	18.2%
Median	24,114	31,863	27,986	28,820	29,805	3,734	3,973	4,165	12.3%	6.4%	5.2%	16.1%	18.6%	19.2%
1st Quartile	20,444	28,822	10,001	11,895	13,209	2,229	2,531	2,758	8.8%	3.5%	3.4%	12.9%	16.3%	17.3%

Source: Trading multiples are based on share price, other market data, and broker consensus future earnings estimates from S&P Capital IQ as of December 31, 2021. All financials calendarized to a December year end.; NM indicates not meaningful, not disclosed, or EV/EBITDA >30x.

Sorted by Enterprise Value.

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