October 2018

Cyber Security Industry Trends

Cyber Security deal activity high with a large amount of strategically motivated transactions.

The global cyber security market was estimated to be worth over $120 billion as of 2017. The market grew by approximately 35 times since 2004 and is projected to grow at 9%-10% year-over-year through 2021. Growth is projected to be driven by rises in cybercrime, vulnerability of IT and communication networks, specifically billions of Internet of Things (IoT) devices, and ransomware threats.

Cyber Security M&A market activity is high. As of Q3 2018, 139 M&A transactions were completed. Active subsectors included Cyber Security Consulting and Access Management.

Strategic acquirers in particular have been very active, indicating a drive towards consolidation in the industry. A few examples of strategically motivated acquisitions this year include Cisco acquiring Duo Security, PayPal acquiring Simility, Splunk acquiring VictorOps and McAfee acquiring TunnelBear. Buyers have been driven by the need to acquire complementary technology and to expand into new spaces (and prevent competitors from acquiring such technology).

Private Equity (PE) and PE backed strategic buyers have also been active in the cyber security space. PE firms are often attempting to consolidate smaller cybersecurity companies operating in the same vertical through strategic acquisitions to drive growth and gain market share. Some large active players in this group include Vista Equity Partners, Thoma Bravo, Bain Capital and BlackRock.

Market conditions are providing traction for Cyber Security investments. Cyber threats are becoming the number one risk to businesses. Increased risk and insufficient governance in the space combined with the rapid development of “targets”, such as cloud and IoT, legacy companies are still trying to catch up with increased vulnerabilities. This gap is being filled by smaller, modern players. This could continue to present a chance for increased investments in cyber security.

About Viant Capital

Viant Capital, a FINRA-registered broker-dealer, is chartered to engage in all investment banking activities. Based in San Francisco, Viant’s seasoned industry professionals provide advisory services to a global base of SaaS and technology clients. Viant Capital has deep industry knowledge, a strong track record of delivering optimal outcomes, and significant relationships with software and private equity firms actively seeking to invest within the Technology marketplace.

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Source: Cisco Security Report, Cyber Security Ventures, Wall Street Research
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Global Market Valuation

(USD$ in millions) Valuation LTM Financials Rev Growth Valuation Multiples
High Growth Cybersecurity Mkt Cap TEV Revenue EBITDA CY15-CY17 CY17-CY18E TEV/Revenue TEV/EBITDA
Everbridge, Inc. $1,665.6 $1,651.8 $134.4 ($33.2) 33.3% 40.0% 12.3x 11.3x NM NM
ForeScout Technologies, Inc. $1,530.0 $1,329.4 $272.3 ($93.4) 32.4% 31.5% 4.9x 4.6x NM NM
Mimecast Limited $2,423.0 $2,346.4 $301.2 $19.5 33.2% 32.3% 7.8x 7.4x NM 54.3x
Okta, Inc. $7,841.5 $7,569.0 $325.6 ($120.5) 74.0% 44.3% 23.2x 20.2x NM NM
Palo Alto Networks, Inc. $21,092.3 $19,609.0 $2,273.1 $6.5 31.5% 27.0% 8.6x 7.8x NM 28.6x
Proofpoint, Inc. $5,352.9 $5,422.9 $661.0 ($38.9) 39.3% 38.0% 8.2x 7.6x NM 50.7x
Mimecast Limited $17,237.3 $16,414.3 $1,463.7 ($243.1) 37.9% 32.9% 11.9x 11.7x NM NM
Zscaler, Inc. $4,782.5 $4,484.0 $190.2 ($19.5) N/A 46.1% 23.6x 19.9x NM NM
Mean 12.4x 11.1x NM 44.6x
Median 9.9x 8.7x NM 50.7x

Low Growth Cybersecurity

Check Point Software Technologies $18,391.0 $16,709.2 $1,896.9 $309.6 6.7% 2.9% 8.8x 8.8x NM 16.2x
CyberArk Software Ltd. $2,777.8 $2,420.8 $314.5 $41.5 27.6% 26.1% 7.7x 7.3x NM 27.3x
F5 Networks, Inc. $11,609.0 $10,524.5 $2,161.4 $661.4 3.8% 4.2% 4.9x 4.8x 15.9x 12.4x
FireEye, Inc. $3,233.2 $3,097.3 $790.7 ($127.7) 9.8% 10.5% 3.9x 3.7x NM 27.0x
Fortinet, Inc. $15,609.6 $14,175.9 $1,710.8 $245.2 21.7% 19.7% 8.3x 7.9x NM 31.9x
F-Secure Oyj $558.7 $466.3 $210.6 $12.9 12.7% 5.6% 2.2x 2.2x 36.3x 33.0x
Imperva, Inc. $1,582.8 $1,188.3 $351.8 $5.0 17.2% 9.7% 3.4x 3.4x NM 26.6x
OneSpan Inc. $758.2 $656.8 $202.0 $2.8 (10.5%) 7.1% 3.3x 3.2x NM 39.9x
Qualys, Inc. $3,355.7 $3,033.2 $267.6 $75.8 18.5% 20.8% 11.3x 10.9x 40.0x 27.2x
Rapid7, Inc. $1,699.0 $1,584.2 $233.1 ($44.8) 34.8% 20.4% 6.8x 6.5x NM NM
SecureWorks Corp. $1,138.6 $1,036.4 $492.9 ($37.9) 17.4% 11.0% 2.1x 2.0x NM NM
Sophos Group plc $3,101.7 $3,274.8 $693.4 $39.1 13.2% 17.6% 4.7x 4.6x NM 37.3x
Symantec Corporation $12,921.8 $15,628.8 $4,750.0 $966.0 14.3% 0.4% 3.3x 3.3x 16.2x 7.3x
Trend Micro Incorporated $9,115.4 $7,850.3 $1,401.1 $455.3 13.0% 8.3% 5.6x 5.5x 17.2x 15.9x
Mean 5.4x 5.3x 25.1x 25.2x
Median 4.8x 4.7x 17.2x 27.1x
Overall Mean 8.0x 7.4x 25.1x 29.0x
Overall Median 7.2x 6.9x 17.2x 27.3x
As of YTD Q3 2018, both M&A deal volume and M&A deal value have increased as compared to YTD Q3 2017. From YTD Q3 2017 to YTD Q3 2018, deal activity increased from 133 to 139 and deal volume increased from $8.9 billion to $10.1 billion. Not only are more deals being done but also average deal size has increased. This is likely because buyers are trying to catch up in the cyber security space with constantly evolving threats and new technologies soon to be introduced such as 5G and IoT.

Particularly active sectors YTD include: cyber security consulting, access management, threat intelligence and MSSP, among others.

Given the growing presence of cybersecurity risks, prospective buyers have evolved out of unrelated sectors. Highlighting this trend in 2018 are Allstate, KPMG and TransUnion, who all pursued acquisitions of cybersecurity companies for a combined valuation of ~$900 million. Within the cybersecurity industry, key buyers include Splunk, Fortinet, and Palo Alto Networks.
## Notable M&A Transactions – YTD October 2018

<table>
<thead>
<tr>
<th>Date</th>
<th>Target</th>
<th>Buyer</th>
<th>Strategic Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 2018</td>
<td>Duo</td>
<td>Cisco</td>
<td>• “As a new business unit within Cisco, Duo will benefit from being part of a larger organization with established go-to-market reach, scale, and partnerships.”</td>
</tr>
<tr>
<td>Oct 2018</td>
<td>ZoneFox</td>
<td>Fortinet</td>
<td>• “We’re pleased to join the Fortinet team and bring together our shared vision of alleviating CISO concerns about insider threat.”</td>
</tr>
<tr>
<td>Oct 2018</td>
<td>RedLock</td>
<td>Palo Alto</td>
<td>• “Our relationships with top benefit brokers and over 1,000 companies will be enhanced by Allstate’s capabilities and access to the Allstate Benefits distribution network.”</td>
</tr>
<tr>
<td>Aug 2018</td>
<td>InfoArmor</td>
<td>Allstate</td>
<td>• “By combining VictorOps’ incident management capabilities and the Splunk platform, organizations will be able to quickly resolve and even help prevent issues that degrade customer engagement.”</td>
</tr>
<tr>
<td>Jun 2018</td>
<td>leidos</td>
<td>Capgemini</td>
<td>• “It is the perfect fit to reinforce our cybersecurity practice in North America, to help meet the security requirements of our international client base.”</td>
</tr>
<tr>
<td>May 2018</td>
<td>Iovation</td>
<td>TransUnion</td>
<td>• “TransUnion has long been at the forefront of developing innovative fraud and identity solutions, and together with Iovation, we will create an unmatched network of offline and online identities that will help make transactions faster and more secure, while providing a frictionless experience for consumers.”</td>
</tr>
<tr>
<td>May 2018</td>
<td>Lumeta</td>
<td>FireMon</td>
<td>• “Lumeta’s vendors pair well with FireMon’s vendor-agnostic approach to solving customers’ problems. In addition, Lumeta’s history, which dates back to the innovation center Bell Labs, perfectly complements FireMon’s business model and technology strategy.”</td>
</tr>
<tr>
<td>Apr 2018</td>
<td>Bomgar</td>
<td>Francisco Partners</td>
<td>• “We see an opportunity to build upon Bomgar’s impressive technology and enthusiastic customer base to rapidly expand their product portfolio and market presence.”</td>
</tr>
<tr>
<td>Apr 2018</td>
<td>SiteLock</td>
<td>abry partners</td>
<td>• “We are excited to partner with SiteLock to support their continued innovation of new products and solutions both organically and inorganically.”</td>
</tr>
<tr>
<td>Apr 2018</td>
<td>Phantom</td>
<td>Splunk</td>
<td>• “Phantom’s employees and technology significantly expand and strengthen Splunk’s vision for the security nerve center and for business revolution through IT.”</td>
</tr>
<tr>
<td>Mar 2018</td>
<td>evident.io</td>
<td>Palo Alto</td>
<td>• “The deal combines the best public cloud infrastructure security company, Evident.io, with the industry’s leader in public cloud security, Palo Alto Networks. Together, our technologies will form the world’s most advanced cloud security offering.”</td>
</tr>
<tr>
<td>Jan 2018</td>
<td>ThreatMetrix</td>
<td>LexisNexis</td>
<td>• “Over the past ten years the ThreatMetrix team has pioneered the digital identity space, and by combining the strength of LexisNexis Risk Solutions and ThreatMetrix into a single business, our customers, partners, and employees will benefit with a unique and compelling market opportunity.”</td>
</tr>
</tbody>
</table>

Source: Capital IQ, Press Releases
### Notable Funding Activity – YTD October 2018

$ in millions

<table>
<thead>
<tr>
<th>Date</th>
<th>Target</th>
<th>Investors</th>
<th>Amt Raised</th>
<th>Funding Stage</th>
<th>Industry Sub-Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct-25</td>
<td>Artic Wolf</td>
<td>Future Fund</td>
<td>45.0</td>
<td>Series C</td>
<td>Network &amp; Infrastructure Security</td>
</tr>
<tr>
<td>Oct-23</td>
<td>Area 1 Security</td>
<td>Kleiner Perkins</td>
<td>32.0</td>
<td>Series C</td>
<td>Threat Intelligence</td>
</tr>
<tr>
<td>Oct-22</td>
<td>Crisp Thinking</td>
<td>Baird</td>
<td>25.0</td>
<td>Late Stage VC</td>
<td>Digital Risk Management</td>
</tr>
<tr>
<td>Oct-17</td>
<td>White Source</td>
<td>Susquehanna Growth</td>
<td>35.0</td>
<td>Series C</td>
<td>Risk and Compliance</td>
</tr>
<tr>
<td>Oct-17</td>
<td>MSI</td>
<td>BlueBear Capital</td>
<td>8.0</td>
<td>Series A</td>
<td>Endpoint Security</td>
</tr>
<tr>
<td>Oct-10</td>
<td>Demisto</td>
<td>Greylock Partners</td>
<td>43.0</td>
<td>Series C</td>
<td>Incident Response</td>
</tr>
<tr>
<td>Oct-2</td>
<td>Tanium</td>
<td>Wellington Management</td>
<td>200.0</td>
<td>Late Stage VC</td>
<td>Information Technology</td>
</tr>
<tr>
<td>Jun-27</td>
<td>Social SafeGuard</td>
<td>Allegis Cyber</td>
<td>11.0</td>
<td>Series B</td>
<td>Digital Risk Management</td>
</tr>
<tr>
<td>Jun-27</td>
<td>Preempt Security</td>
<td>Intel Capital</td>
<td>17.5</td>
<td>Series B</td>
<td>SecOps &amp; Incident Response</td>
</tr>
<tr>
<td>Jun-27</td>
<td>Cynet</td>
<td>Norwest Venture Partners</td>
<td>13.0</td>
<td>Series B</td>
<td>Endpoint Security</td>
</tr>
<tr>
<td>Jun-27</td>
<td>Balbix, Inc.</td>
<td>Singtel Innov8</td>
<td>20.0</td>
<td>Series B</td>
<td>Risk and Compliance</td>
</tr>
<tr>
<td>Jun-23</td>
<td>IntSights</td>
<td>Tola Capital</td>
<td>17.0</td>
<td>Series C</td>
<td>Threat Intelligence</td>
</tr>
<tr>
<td>Jun-17</td>
<td>Tessian</td>
<td>Accel Partners</td>
<td>9.0</td>
<td>Series A</td>
<td>Messaging Security</td>
</tr>
<tr>
<td>Jun-12</td>
<td>Monarx, Inc.</td>
<td>Kickstart Seed Fund</td>
<td>3.4</td>
<td>Seed</td>
<td>Web Security</td>
</tr>
<tr>
<td>Jun-5</td>
<td>XAIN AG</td>
<td>Earlybird Venture Capital</td>
<td>6.0</td>
<td>Seed</td>
<td>Blockchain</td>
</tr>
<tr>
<td>Jun-4</td>
<td>Cyberbit Ltd.</td>
<td>Claridge Israel</td>
<td>30.0</td>
<td>Venture</td>
<td>Network &amp; Infrastructure Security</td>
</tr>
<tr>
<td>Jun-1</td>
<td>SafetoNet Ltd.</td>
<td>West Hill Capital</td>
<td>13.0</td>
<td>Series A</td>
<td>Identity &amp; Access Management</td>
</tr>
<tr>
<td>May-30</td>
<td>Vulcan Cyber</td>
<td>YL Ventures</td>
<td>4.0</td>
<td>Seed</td>
<td>SecOps &amp; Incident Response</td>
</tr>
<tr>
<td>May-29</td>
<td>CyberSaint, Inc.</td>
<td>BlueIO</td>
<td>3.0</td>
<td>Early Stage VC</td>
<td>Risk &amp; Compliance</td>
</tr>
</tbody>
</table>

Sources: Capital IQ, Crunchbase, Momentum Cyber
The global MSSP market is projected to grow from USD $24.1 billion in 2018 to USD $47.7 billion by 2023 (growing at CAGR of 14.7% from 2018 to 2023).

Growth is projected to be driven by the rising number of cyber attacks, increased complexities in network infrastructure, and lack of capital resources and skilled IT staff, all of which will require companies to rely on MSSPs.

YTD Q3 2018, 12 M&A transactions closed in the MSSP space, compared to 26 total closed M&A transactions for the space in 2017.

YTD Q3 2018, 6 financing transactions were completed in the MSSP space, compared to 13 total financing transactions for the space in 2017.

While transaction activity in the MSSP space has slowed slightly in 2018, it still accounts for nearly 10% of all cyber security M&A activity (based on # of deals) and is expected to continue to do so.

Notable MSSP M&A transactions as of Q3 2018 include ADT’s acquisition of Secure Designs, Capgemini’s acquisition of Leidos and KPMG’s acquisition of Egyde (all for undisclosed amounts).

MSSPs have emerged as profitable options, as they help businesses in protecting corporate online assets, password files, sensitive e-mails, and networks. Thus, MSSPs have been gaining acceptance among businesses of all sizes as the businesses are significantly increasing spending on network security.

The increasing complexity of protecting infrastructure against advanced cyber attacks will continue to compel businesses to adopt or partner with managed security services.

Strong governmental support is expected to be a critical element in robust growth momentum of the MSSP space.
Industry Perspectives – Threat Intelligence

Threat intelligence is data on cyber threats that has been collected, evaluated, and analyzed. To be successful in identifying and mitigating threats, it requires collaboration from various sources.

### Trends

- Cyber threats are becoming the number one threat facing businesses today, and threats are becoming more advanced than ever. As such, cyber threat intelligence (CTI) is also becoming increasingly important.

- SANS Institute published a report citing that 68% of companies created or consumed CTI data in 2018, up from 60% in 2017.

- In 2018, dedicated threat intelligence platforms became more common than in prior years. Previously, threat intelligence feeds were often integrated via APIs (application program interfaces). This suggests a maturing in the space.

- 82% of organizations in the SANS survey reported using third party sources for CTI data, such ISACs (Information Sharing and Analysis Center) and CERTs (Computer Emergency Response Team); suggesting that information sharing is critical to the industry.

### Transaction Activity

- The broader threat intelligence/SOC/response sector closed 19 M&A transactions YTD Q3 2018, compared to 16 total closed M&A transactions for the space in 2017.

- The broader threat intelligence/SOC/response sector closed 36 financing transactions YTD Q3 2018, compared to 52 total financing transactions for the space in 2017.

- Transaction activity in the threat intelligence space is high as companies search for ways to effectively mitigate cyber threats.

- Notably, in July 2018, AT&T announced the acquisition of AlienVault with an implied enterprise value of $600M. AT&T hopes the acquisition will improve its ability to help organizations detect and respond to cyber security attacks.

### Recommendations and Outlook

- While CTI has come a long way, there still remains a need for more integration between CTI tools and data feeds, suggesting the need for more investment in the space.

- Organizations continue to face basic yet major challenges when it comes to threat intelligence, including: insufficient staffing, lack of budget and time to deploy CTI.

- CTI tools need to become easier to configure, integrate and use, which will pave the way towards more widespread use.

- With continued threat advancement, companies will be forced to dedicate more resources to CTI tools.

- There is room for improvement and innovation in the threat intelligence space; we expect to continue to see strong investment and M&A activity.

Source: SANS 2018 Cyber Threat Intelligence Survey, Center for Internet Security, Momentum Cyber, Press Releases
Industry Perspectives – Identity and Access Management (IAM)

IAM refers to a framework of policies & technologies to ensure that the right people have access to the right resources. Traditionally implemented using on-premise solutions, IAM is moving towards cloud-based Identity-as-a-Service and hybrid offerings.

### Trends
- By 2022, IAM as a service is projected to be the chosen delivery model for more than 80% of new access management purchases globally, up from 50% as of 1H of 2018.
- The cloud-based security IAM market is poised to rise from $2.5B in 2018 to over $3.4B by 2020.
- Companies are seeking Identity-as-a-Service (IDaaS) delivery models for new access management purchases, forcing traditional providers of software and appliance-based access management to switch to IDaaS offerings.
- The access management market is evolving to support a variety of user authentication methods, adaptive access, API target services, and mobile computing.
- Increased number of identities from people and devices is changing IAM architecture and making way for decentralized identity services.

### Transaction Activity
- M&A activity in the IAM space is outpacing activity in 2017, with 25 transactions completed as of Q3 2018. 2017 saw 25 closed transactions. The high level of activity reflects the consolidation taking place in this space.
- Key M&A transaction in the IAM space as of Q3 2018 include the acquisition of Duo Security by Cisco (EV of $2.4 billion), the acquisition of InfoArmor by Allstate (EV of $525 million) and the acquisition of Centrify by Thoma Bravo (EV of $500 million).

### Recommendations and Outlook
- Ongoing IAM provider consolidation is reshaping the competitive landscape, making product positioning pivotal. This also presents an opportunity for current investors seeking to exit their investments.
- There is an increasing demand for smarter identity analytics to detect threatening user behavior. Verticals like Identity Analytics are growing to complement IAM offerings. The possibility of integrating such complementary offerings might drive IAM maturity in the future.
- Blockchain-enabled identities and decentralized identity are transforming IAM systems to allow users to create and register their own identity and related relationship identifiers, reducing costs. Gartner estimates decentralized identity services will be ready for broad production scenarios in 2020.
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