Trends in Cybersecurity M&A (2016 to 2017 Q1)

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1. Introduction

Cybersecurity has been the industry enjoying explosive growth for approximately a decade. The demand of robust and effective cybersecurity solutions for companies and government institutions is high. The need to securely access remote servers, collaborate with international co-workers and interact with customers round the clock is indispensable for most businesses today.

This background provides favorable conditions for information security companies to thrive. The ecosystem of cybersecurity startups and established vendors is diversified, especially in developed economies. The cycle of starting a new business as well as its eventual acquisitions and mergers (M&A) is dynamic and fast. This study covers the period of 2016 and the first quarter of 2017 in which notable M&A events might indicate the key developments of cybersecurity solutions. While many M&A events took place in this period, we have made a selective list of them to establish the sample base for this assessment. Through this analysis, this research attempts to demonstrate the whole picture of the cybersecurity industry as well as anticipate the trends, emerging technologies and solutions.

2. Methodology

There are approximately 50 M&A events taken place in 2016 and the first quarter of 2017. This research analyzes the cybersecurity M&A as a starting point and tries to identify trends in the cyber industry

1.1. Scope and Criteria of Cybersecurity M&A Selection

In order to ensure the pertinence of the trend analysis, this study adopts a comparative model to approach the subject. It is intended to compare the M&A deals over 500 million USD and those below 10 million USD in this study. According to this prerequisite, there are ten acquisitions during the examined period that are over 500 million USD and 11 ones below 10 million USD. This condition is established based on the hypothesis that the size of the deal represents several significant indicators of the trends in cybersecurity. On the one hand, the

cybersecurity sub-sectors that the market leaders invest reveal the existing and potential security problems of hardware and software as well as their consequences to businesses. Thus, the deal size, to a certain extent, provides the answer to the question—how much is a business/customer willing to afford to have such risks mitigated and fixed? On the other hand, this figure anticipates the obsoleting sub-sectors. In this perspective, investors can focus on companies of high future values and avoid declining ones. Following this selection section, a qualitative analysis will be conducted regarding the business area of the acquirees and acquirers in the list. It is expected to forecast the trends in cybersecurity with other market sources in this section.

For a full list of all M&A over the last 15 months, please contact us at info@cyberdb.co

1.2. Limits of the research

This research uses English sources and data. The research scope will thus be limited to companies having English press releases or the M&A event being reported by an English media. This probably will overlook M&A events in non-English speaking regions, notably in China, a region of substantial growth in cybersecurity products.

In addition, the misjudgment and bias of the acquirers about their acquirees are not taken into account in this research. This is an unknown attribute in the study period of this research. Therefore, this might not reflect the accurate market value of the deals and affect the according market trend analysis results.

3. M&A Events Beyond 500M USD

Acquiree	Acquiree Country	Establish. Year	Sector	Acquirer	Acquisition Date	Acquirer Country	Deal size (in million USD)	Reasons for acquisition
Bluecoat	U.S.	1996	Web gateway security Network traffic monitoring	Symantec	Jun-16	U.S.	4,650	1. Symantec's leading threat telemetry will combine with Blue Coat's networks and cloud security offerings to provide differentiated security solutions across hundreds of millions of endpoints and servers, and billions of email and web transactions. 2. Symantec will be able to deliver security for the cloud generation of users, data and apps, for the cloud, from the cloud and to the cloud. The company's leading data loss prevention capabilities will be applied at the web proxy and to over 12,000 cloud applications. 3. Enlarge the scale of investment in cyber R&D and threat research of Symantec. (> 3,000 engineers and researchers, as well as nine Threat Response Centers.)
McAfee	U.S.	1987	Digital security tools (Comprehensive product catalog)	TGP Capital	Sep-16	U.S.	4,200	1. Partnering with McAfee is a channel for the private equity firm to be on the cutting edge of cybersecurity. 2. It might be an opportunistic acquisition attempting to carve out McAfee. McAfee is considered, despite its industry experience, a falling star vis-a-vis new comers like FireEye and Palo Alto. Intel remains as a major stakeholder of McAfee after this acquisition. (49% share)

Acquiree	Acquiree Country	Establish. Year	Sector	Acquirer	Acquisition Date	Acquirer Country	Deal size (in million USD)	Reasons for acquisition
LifeLock	U.S.	2005	Identity protection	Symantec	Nov-16	U.S.	2,362	1. The combination of Norton (Symantec) and LifeLock (4.4 million+ highly-satisfied members) will enable Symantec to deliver comprehensive cyber defense for consumers. 2. Norton's sales is decling and combing Lifelock's customer base can transform the Norton's consumer security industry from malware protection to the broader category of Digital Safety for consumers, thus increases sales.
Optiv Security	U.S.	2015	Security Consulting Risk Management Access, End-to-end, Architecture security	KKR	Dec-16	U.S.	1,900	1. Optiv Security is the merger of two cutting edge companies, Accuvant and FishNet Security. It forms an entity providing comprehensive security solutions on almost all levels. 2. KKR, a private equity firm, invest in cybersecurity companies with the vision of helping global clients address their full range of cyber risk and security needs in a customized and integrated fashion. 3. Optiv Security can expand its own acquisition endeavours with KKR's financial support.

Acquiree	Acquiree Country	Establish. Year	Sector	Acquirer	Acquisition Date	Acquirer Country	Deal size (in million USD)	Reasons for acquisition
Ixia	U.S.	1997	Virtual network security, Networkand application testing	Keysight	Jan-17	U.S.	1,659	1. 1. Both companies are leaders in the fastest-growing communications and networking trends including 5G, IoT, visibility, security and application performance. 2. Ixia has a broad IP portfolio that encompasses network communications, visibility, application and security technologies with solutions deeply rooted in software. In addition, Ixia's IP will extend Keysight's position in wireless communications and create a unique combination of Layer 1 through 7 end-to-end solutions. This addresses the fast-growing segments of the 5G communications design and test ecosystem. 3. Enlarge both companies' IP portfolios in networking and wireless protocols as well as experienced technical teams. Strengthen market leading positions and values.

Acquiree	Acquiree Country	Establish. Year	Sector	Acquiror	Acquisition Date	Acquiror Country	Deal size (in million USD)	Reasons for acquisition
AVG	The Netherlands/ Czech Republic	1991	Antivirus software	Avast	Jul-16	Czech Republic	1,463	1. The two antivirus leaders' merger will develop more advanced security offerings in the core business and new innovations in emerging markets, such as security for IoT devices. 2. Combining Avast's and AVG's users, the organization will have a network of more than 400 million endpoints, of which 160 million are mobile, that act as de facto sensors, providing information about malware to help detect and neutralize new threats as soon as they appear. This increase in scale will enable Avast to create more technically advanced personal security and privacy products. 3. The combined threat labs will have teams dedicated to emerging threats affecting consumers. These include social engineering threats, which are commonly used to target IoT devices, and ransomware.
Infoblox	U.S.	2000	Network intelligence control DDI Management	Vista Equity Partners	Sep-16	U.S.	1,254	1. Infoblox enjoys greater flexibility to execute on long-term strategy to drive increased DDI automation and DNS security into the enterprise market. 2. Infolox's revenue dropped between 2013 and 2015, giving an opportunity for hedge fund managers to acquire. 3. Vista enriches its portfolio with Infoblox's unique services.

Acquiree	Acquiree Country	Establish. Year	Sector	Acquirer	Acquisition Date	Acquirer Country	Deal size (in million USD)	Reasons for acquisition
Landesk	U.S.	1985	security vulnerability detection and remediation	HEAT software/ Lumension	Jan-17	U.S.	1,100	1. The combination of two leading companies bolsters Ivanti's robust product offerings and strengthens its position as a leading vendor capable of addressing the entire continuum of a customer's IT management needs. 2. The combination enhances Ivanti's unified endpoint management (UEM) solutions, increases its strength in the endpoint security market, and provides a rapidly growing SaaS service management platform. 3. The combined company is well positioned to address IT's growing needs as they deal with increasingly complex end-user environments and transition services to the cloud.
Endgame	U.S.	2008	Network security, Security, Computer, Analytics	Accenture	Mar-17	U.S.	1,000	1. Reselling Endgame's EDR platform and enhancing Accenture's deep bench of skilled security professionals to best leverage the platform for Accenture's global client base. 2. Endgame's platform has provided differentiated value to stop malicious cyber activity before it causes damage and loss of critical assets, which has been recently validated by its $18.8 million EDR contract with the U.S. Air Force to prevent, stop and hunt advanced adversaries.

Acquiree	Acquiree Country	Establish. Year	Sector	Acquirer	Acquisition Date	Acquirer Country	Deal size (in million USD)	Reasons for acquisition
Veracode	U.S.	2006	Systems software Appliction security testing	CA Technologies	Mar-16	U.S.	614	1. The acquisition establishes CA Technologies as a leader in the Secure DevOps market, bridges its Security business with its broad DevOps portfolio and adds to its growing SaaS business having Veracode on board. 2. The merger will enable CA Technologies to pre-test and build applications with the ability to run with greater automated self-control and a wider capability to do application securty testing in a secure way
Dyn	U.S.	2001	DNS monitoring & performance	Oracle	Nov-16	U.S.	650	1. Dyn's solution is powered by a global network that drives 40 billion traffic optimization decisions daily for more than 3,500 enterprise customers, including preeminent digital brands such as Netflix, Twitter, Pfizer and CNBC. Adding Dyn's best-in-class DNS solution extends the Oracle cloud computing platform and provides enterprise customers with a one-stop shop for Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS). 2. Oracle attempts to empower its IaaS and PaaS to compete with Amazon's AWS.
Ping Identity	U.S.	2001	Identity Defined Security	Vista Equity Partners	Jun-16	U.S.	600	1. The CEO of Ping, Andre Durand, wishes not to miss the chance of convincing investment that allows the Ping team to broaden its reach into new markets. 2. Vista envisions the market of identity protection will prosper as the IoT proliferates in the future. Aquiring Ping Identity is a strategic move for the firm.

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4. M&A Events Below 10M USD

Acquiree	Acquiree Country	Establish. Year	Sector	Acquirer	Acquisition Date	Acquirer Country	Deal size (in million USD)	Reasons for acquisition
Damballa	U.S.	2006	Next generation machine learning, threat detection	Core Security Technologies	Jul-16	U.S.	9	1. The acquisition will complement Core Security's suite of software solutions that manage security risk across the enterprise and protect against any attack vector on any type of device or operating system. 2. It will make Core Security the only provider to offer a complete and comprehensive Actionable Insight Platform (AIP) to completely deter, detect, remediate security risk and offer continuous validation of security controls. 3. Damballa has been in financial difficulties
Greenview Data	U.S.	1980	Spam filtering, email hosting	Zix Corporation	Mar-17	U.S.	8.1	4. The acquisition ensures Zix's leadership position in email encryption, and expand their opportunities for growth with add-on business in a larger total addressable market. 5. Greenview's technology strengthens encryption related services of Zix

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Acquiree	Acquiree Country	Establish. Year	Sector	Acquirer	Acquisition Date	Acquirer Country	Deal size (in million USD)	Reasons for acquisition
Appcito	U.S.	2013	SaaS cloud solution	A10 Networks	Jul-16	U.S.	6.5	1. The acquisition positions A10 Networks as a comprehensive secure application services leader, and it represents a strategic step in the company's vision to help customers become more secure and agile. They help significantly bridge traditional and cloud application environments for companies as many are moving their business operations to Cloud. 2. A10 is heading to the Cloud business. Integrating Appcito can substantially enhance its development.
Virtual Security Research	U.S.	2004	Security Consulting	NCC Group	Nov-16	U.K.	6	These earnings enhancing acquisition is part of NCC's strategy to acquire services-led businesses in North America, to further complement its geographical presence and technical strength in the region. It will provide a foundation stone to grow the company coverage in Boston and in the North East of the US.
Modulo Security	Brazil	2006	Technology for governance, compliance/ risk management	SAI Global	Aug-16	Australia	5.2	The acquisition, which complements and augments SAI Global's leading governance, risk and compliance software platform, Compliance, furthers SAI Global's strategy to focus its globally integrated, risk management solutions business towards higher margin, higher growth software, and digital products and services.

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Acquiree	Acquiree Country	Establish. Year	Sector	Acquirer	Acquisition Date	Acquirer Country	Deal size (in million USD)	Reasons for acquisition
Agata Solutions	Israel	2010	Network security, forensics / Deep packet inspection	CyberArk	Mar-16	Israel	3.1	Unidentified
Barricade Security Systems	Ireland	2014	Machine learning, behavioural analysis	Sophos	Nov-16	U.K.	1.9	1. The team and technology from Barricade will strengthen Sophos' synchronized security capabilities and its next-generation network and endpoint protection portfolio. 2. Delivering advanced protection to partners and customers without adding layers of complexity is at the core of our product strategy. Enterprise-grade security should be available to all organizations, and the acquisition of Barricade will accelerate the next phase of synchronized security innovation across the Sophos Central management platform.
Safend	Israel	2003	Data security, encryption	SuperCom	Mar-16	Israel	1.5	1. Integrating Safend capabilities into SuperCom, and their experienced team of security experts will enable SuperCom to offer complementary cyber and data security solutions as part of its broad security offering and strengthen the position of trusted partner for National Security solutions. 2. SuperCom would be able to leverage Safend expertise and products to enhance security on our other existing product platforms in the IoT, secure payments, and e-Gov spaces.

Acquiree	Acquiree Country	Establish. Year	Sector	Acquirer	Acquisition Date	Acquirer Country	Deal size (in million USD)	Reasons for acquisition
Advanced Security Consulting	U.K.	2012	Security Consulting	Falanx Group	May-16	U.K.	0.8	ASC's capabilities are entirely complementary to Falanx and will enable them to offer a compelling and integrated cyber security solution to organisations of all types, delivered by highly qualified experts at high government level.
Sookasa	U.S.	2011	Cloud security, encryption, compliance	Barracuda Networks	Mar-16	U.S.	0.4	1. The acquisition of Sookasa brings a talented team and sophisticated security technology to Barracuda. 2. This acquisition strengthens Barracuda's technology leadership in SaaS security, including its Office 365 initiatives and Secure Web Gateway business, and the Sookasa technology will be incorporated into its advanced micro-services security architecture in areas such as Data Loss Prevention and Encryption.
IronKey Enterprise Management Services	U.S.	Unknown	Encryption	DataLocker	Feb-16	U.S.	0.4	1. Incorporating IronKey's technology into the line of DataLocker products will consolidate the position as a leading provider of enterprise encryption management solutions. 2. IronKey is the gold standard in encrypted storage.

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5. Market Trends

1.3. The Big Buyers

Symantec has made two of the highest priced acquisitions in the assessed 15 months, making the established cybersecurity giant an active acquirer. One explanation can be the company's competitivity vis-à-vis its younger competitors like FireEye, Tanium and Skybox Security, which adopt a different approach to address cybersecurity threats. Symantec's high-profile acquisition of **Bluecoat** and **Lifelocker** is a way of rejuvenating the company. In 2015, the revenue of Symantec underperformed the market expectation. It dropped 2.4%. This could be related to the declining PC market which the market for traditional desktop security products shrinks progressively every year. Lenovo, the biggest PC manufacturer, recorded a 5.6% drop of shipment between 2015 and 2016, which was the fifth consecutive year of decline. The **shift from PC to Mobile and cloud computing**, especially in the consumer market, deals a dramatic blow to traditional information security companies focusing on PC security products.

This tendency is further pronounced in other traditional big players' M&A activities. **McAfee**, a traditional all-rounded leader in cybersecurity, has been an Intel's associate company for seven years before its recent acquisition by **TGP capital**. McAfee's profit has been static during this period and one source suggests that its 2014/15 financial performance was worse than 2010 prior to Intel's acquisition. One more example is the merger of the year, **AVG** and **Avast**, two antivirus software giants are becoming one so as to combine their market shares. The CEO of AVG, Kavos, mentioned that the **market of antivirus software was overcrowded having over 25 major vendors using the similar marketing strategies and products**. The AVG-Avast merger could be **the beginning of a mass consolidation of the industry**. Indeed, the notion of security has expanded, extended and amplified with the proliferation of new hardware and technological concepts. Symantec, McAfee, AVG and Avast are several good examples of the previous generation of established, yet struggling in recent years, cybersecurity firms progressing seamlessly with the expansion of PC. These M&A events can be considered as a major sector shift and attempt to rejuvenate these traditional players.

In addition, it is worth noting **the involvement of private equity firms in cybersecurity** as well as the geographical emphasis of these M&A events. **Four of the ten acquisitions beyond 500 USD involve private equity firms**.

Vista Equity Partners has made two acquisitions during the examined period. The vision of private equity firm is different from the industry companies' M&As. They might focus more on the finances rather than the products as well as the buying and selling strategy. Finally, except the case of AVG-Avast, other **M&A events occurs in the U.S./ by U.S. companies**. This might be an indication of the market maturity. There are more established and startup cybersecurity companies in the region. **The U.S. acquirers also have a high purchasing power**.

1.4. The Small Buyers

The most obvious characteristic of the smaller deals is the geographic distribution of the acquirer. As discussed, the big deals are frequently done between U.S. acquirer and acquirees, this represents the U.S. based acquirers' high purchasing power, strong willingness to expand as well as the struggles of some traditional major players in cybersecurity. While the U.S. based acquirees/acquirers remain active in the small deals, **other non-U.S. based ones ranging from the U.K., Australia, Ireland Brazil to Israel are visible in the list**. Moreover, these non-U.S. representatives are enthusiastic of international M&As, not limited to their own region.

In addition, it can be observed that there are more non-technical and semi-technical M&A events in the small deals. Security consulting services such as Virtual Security Research and Advanced Security Consulting offer a mix of technical experts and commercial advisors. This attribute echoes the general threat landscape that **cybersecurity concerns increasingly interdisciplinary issues**. Selling a one-way product or service might not adapt to the continual threat dynamics, and most importantly, the market demand. In a way, this partially reflects the efforts of the traditional cybersecurity companies' business pivoting as demonstrated in the previous argument.

1.5.   Moving to the Cloud

Cloud computing seems to be developing fast and it meets the needs of the changing digital economy, the Internet of Things (IoT) as well as user behavior in using computing devices. The vulnerabilities and security concerns aroused by this wave of 'moving to the cloud' can be observed in both lists. Cloud services, regardless of the business nature, will rely on high performing and secure identity authentication, data encryption and networks. 13 out of the 20 examined M&A companies, **Bluecoat, LifeLock, Ixia, Infoblox, Endgame, Veracode, Dyn, Ping Identity, Greenview Data, Agata Solutions, Safend, Sookasa, IronKey Enterprise Management Services** develop products coping with the security issues of cloud computing. Same as the previous generation's established cybersecurity companies flourishing hand in hand with the expansion of PC. **The cloud computing tendency can serve as the indicating market for the next generation cybersecurity market leaders**.

6. Conclusion

The selected M&A events in the examined period provide a great deal of attributes of the cybersecurity industry. Through the business focuses, big and small M&A events, the context of the traditional companies' struggles and young startups' ambitions are vividly demonstrated. It is worth recognizing the dominating role of cloud computing in the foreseeable near future.

One final remark is that, in the selected samples, none of them seems to be working in security solutions regarding an equally revolutionary technology wave, **virtual reality** (VR). In the upcoming M&A events in the near future, it might be expected to see cybersecurity products and services concerning the security problems of VR.

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8. About CyberDB

CyberDB (www.cyberdb.co) is the leading global research databank for Cyber solutions and vendors.

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