

Why Are Investors Excited About Cyber Security Startups, <u>Again</u>?

Ron Moritz, CISSP Managing Director, MTC OWASP: 1 October 2013

Again?



Generations of Cybersecurity

- 1993: Mosaic and the rise of the commercial Internet (FUD 1.0)
- 2000: dot-com bubble burst (double-digit security spend as %IT)
- 2002: inflection point (FUD 1.5)
- 2005: consumer Internet distraction
- 2008: global economic crash
- 2011: media focus on all things cyber (FUD 2.0)
- 2013: Snowden and the fragility of the Internet (anti-FUD?)

Two Real Cybersecurity Drivers

- Governments and corporations are under attack from cyber hacks (no longer simply a nuisance)
- IT budgets are being freed up for products and services to strengthen digital defenses (convergence of risk)



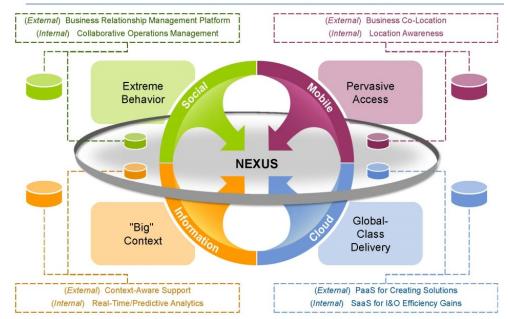
- Hackers are stealing around \$250B/year in IP
 - NSA Director, Gen. Keith Alexander, calls these attacks "the greatest wealth transfer in history"
- Significant YoY increases in cyber attacks
 - DHS reported a 68% increase in cyber attacks in 2012 at federal agencies, government partners, and against critical infrastructure
 Symantec reported attacks on companies rose 42% in 2012
- U.S. government is increasing spending in cybersecurity (despite cuts elsewhere)

Gartner Nexus of Forces



- Pervasive Access
 mobile
- Global Delivery
 cloud
- Big Context
 information
- Extreme Behavior - social

Consider How the Nexus of Forces Provides Direction for IT Operations



A tsunami of change rocking the IT world (David Cowen, Bessemer)



- New threat vectors once again an obstacle to Internet-fueled growth plans (mobile and cloud)
 So cash is being thrown at possible solutions
- Security is in the conversation at the board level
 80% of G2K reporting cyber security preparations to the board
- Gartner estimates 39% increase in security spend:
 From \$67B (in 2013) to \$93B (in 2017)
- Makes cybersecurity ripe for the harvest
 - The 8.7% annual growth rate is compelling metric for investors
- Cyberattack news onslaught is making a difference
 VCs move quickly to fund startups that could solve problems discussed in cyberattack headlines



- Driving investment in innovative technologies
 - \$391M in just 16 companies between Jan 2012 and Sep 2013:

AnchorFree (\$52M)	Endgame (\$23M)
Bit9 (\$25.8M)	FireEye (\$50M)
Bromium (\$26.5M)	Mocana (\$25M)
CipherCloud (\$30M)	Nok Nok Labs (\$15M)
CrowdStrike (\$26M)	Shape Security (\$20M)
Cylance (\$15)	Skyhigh Networks (\$20M)
Cyphort (\$7M)	Veracode (\$30M)
Cyvera (\$11M)	Vormetric (\$15M)

Cybersecurity market is in a renaissance:

- \$1B invested in cybersecurity startups in 2012
 - Up 5% over 2011 (vs. overall venture funding down 10% YoY)
 - 2011 cybersecurity funding was up 94% over 2010



And New Exit Opportunities

Mergers and Acquisitions (M&A)

- Cisco ← NDS
- ProofPoint \leftarrow Amortize Technologies
- Blue Coat Solera Networks
- Cisco ← Sourcefire (\$2.7B or ~10x annual revenue)
- IBM ← Trusteer (\$800M or ~10x annual revenue)

Initial Public Offering (IPO)

- Palo Alto Networks
- Qualys
- FireEye (hot \$300M IPO in September 2013)

Private Equity Carve-Outs and Roll-Ups

- \$200M investment in Airwatch (aggregation strategy)

Making Cybersecurity a Top-of-Mind Investment Category



- Cloud computing is and will remain one of the most attractive destinations for entrepreneurs, technologists, and investors
 - It opens "enormous vulnerabilities on the Internet, but it also presents great opportunity for innovative cybersecurity" (David Cowen, Bessemer)
- VCs are sniffing for cybersecurity, again, asking
 - "Can you get me to an IPO and show me a billion dollar return?"
- Private company valuations doubled + in two years
- New Cyber-Focused Accelerators / Incubators
 - Mach37 Cybersecurity Accelerator (Virginia)
 - JVP National Cybersecurity Incubator (BGU, Beer Sheva)
 - Cisco Israel Cybersecurity Incubator (John Chambers, May 2013)



The venture industry is very good at adapting

- Money that flowed into the consumer Internet market until 2011 mostly dried up in 2012 and 2013
- Current focus is on enterprise solutions helping the enterprise cope with Gartner's "nexus of forces"
- Exits like Waze, IPOs like Wix, and new investment in startups like Webydo, suggest the cycle in consumer will happen again
- But current money (and VC partner talent) is still trying to pivot into the enterprise space as indicated by the new activity (buzz)

Enterprise companies are long-lasting value plays

- Consumer IPOs (Zynga, Facebook, LinkedIn) are exciting while enterprise IPOs are not (get drowned out)
- But, on average, enterprise IPO companies have appreciated about 30% to 40% after the IPO in the last 10 years while consumer IPO companies have dropped a similar amount

Where Regulations Matter



Focus on regulated industries

- The hotbed of the next wave of SaaS
 - Life sciences (health care, research)
 - Financial services industry (insurance, banking)

Cloud is a great opportunity in regulated markets

- clear path of who is doing what (identity management)
- version management (code control) by the vendor
- security and access protocols managed properly and done right
 - central multi-tenured architecture
 - not compromised by multiple customized software solutions
 - valid across all locations
- Security not as a competitive advantage but as an enabler of the "nexus of forces"



Domain expertise is key (for investors and buyers)

 Does the team have deep backgrounds and really understand how customers bought software in the past, how they're going to buy it now, what channels work, what pricing models work, what features should be given first, second, and third?

Does the team really know its vertical market?

- How many people really understand healthcare and cloud technology and how to roll that out?

Government Cyberwarfare & CIP

- More than 80 companies work with the NSA on cyberwarfare and surveillance (Der Spiegel)
 - Unique role for private sector defending a nation in cyberspace
 - Potential for conflict between mission and financial drivers
- Claims that U.S. National Security Agency is funding "digital Blackwater" and "cyber Raytheon"
 - Private suppliers of technology, intelligence, and talent
 - Blackwater (a private military company, now Academi)
 - Raytheon (defense contractor and military equipment maker)
 - Private suppliers of offensive (and defensive) cybersecurity
 - Endgame
 - Shape
 - ManTech International ← HB Gary



Encryption – it is time yet?

- Silent Circle (Zimmerman's PGP reboot) and Wikr (message selfdestruction) – need is not universal but good timing
- Protecting the data inside the cloud and in transit (Vaultive, Dark Matter Labs, Porticor, CipherCloud) – security carried with data

Cloud-based security services – enabling the cloud

- Easier to deploy, cheaper to manage, code is always up-to-date
- Correlation of data from multiple incidents (SumoLogic, CTCH)

Threat Intelligence – needle in the haystack

- Cylance, ThreatMetrix and Seculert are examples
- Fraud-prevention sensor-supported policies
 - Transaction decisions based on more than user ID and password (like geo-location input from XYVerify)
 - Device fingerprinting/reputation and big-data analysis (lovation)

"Character is much easier kept than recovered"



Thomas Paine, US patriot & political philosopher (1737 - 1809)

- Security still a knee-jerk reaction to an attack
 - Spend not correlated to revenue (or direct expense reduction)
 - BYOD as an example
- IT infra security still a one-time, ad hoc effort
 - But more security is now embedded within daily operations
- Security as a broad collection of technologies
 - Still not an inherent, proactive and continual aspect of governance
- Cybersecurity never gets solved
 - Like an antibiotic-resistant bacteria: attackers adapt to defenses and render them obsolete (David Cowen, Bessemer)





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