

Table of Contents

Executive Summary	.03
Major Findings	.05
Introduction	.07
Attacker Behavior	.09
Exploit kits: Down, but not likely out	09
How defender behavior can shift attackers' focus	.11
Web attack methods provide evidence of a mature Internet	12
Web block activity around the globe	13
Spyware really is as bad as it sounds	14
Decline in exploit kit activity likely influencing global spam trends	18
Malicious email: A closer look at malware authors' file type strategies	19
Worried about ransomware? Business email compromise may be a bigger threat	22
Malware evolution: A 6-month perspective	23
Threat intelligence from Talos: On the trail of attacks and vulnerabilities	24
Time to detection: The tug-of-war between attackers and defenders tightens	26
Time-to-evolve trends: Nemucod, Ramnit, Kryptik, and Fareit	28
The expanding life spans—and overlap—of DGA domains	33
Analyzing infrastructure broadens knowledge of attacker tools	34
Supply chain attacks: One compromised vector can affect many organizations	36
The IoT is only just emerging but the IoT botnets are already here	39
Extortion in cyberspace: Ransom denial of service (RDoS)	.41
The changing economics of malicious hacking	.42
Ransomed medical devices: It's happening	42
Vulnerabilities	.46
Geopolitical update: WannaCry attack underscores risk of	16

Vulnerabilities update: Rise in attacks following key disclosures
Don't let DevOps technologies leave the business exposed
Organizations not moving fast enough to patch known Memcached server vulnerabilities
Malicious hackers head to the cloud to shorten the path to top targets
Unmanaged infrastructure and endpoints leave organizations at risk
Security Challenges and Opportunities for Defenders61
Security Capabilities Benchmark Study: Focus on verticals
Company size affects approach to security
Using services to bridge knowledge and talent gaps 63
Outsourcing Service and Threat Alert Data by Country 64
IoT security risks: Preparing for the future-and the now65
Security Capabilities Benchmark Study: Focus on select verticals
Service providers66
Public sector68
Retail70
Manufacturing72
Utilities
Healthcare76
Transportation
Finance80
Conclusion83
Security leaders: It's time to claim a seat at the top table
About Cisco86
Cisco 2017 Midyear Cybersecurity Report contributors
Cisco 2017 Midyear Cybersecurity Report technology partners